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Dr MacNeish

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Human History Branch

Ottawa, April 28, 1958.

MEMORANDUM TO:

Dr. Jacques Rousseau,
Director.

Re: Permission to publish.

Accompany this memorandum is a copy of a manuscript by Dr. Don Wray and myself entitled "The Weaver Site: Twenty Centuries of Illinois Prehistory." I would appreciate having your permission to submit said manuscript to the Illinois State Museum for publication.

I am sending you my copy of the manuscript in case you would care to read and criticize or discuss it.

Richard S. MacNeish

RSM/a.

publication authorized
Jacques Rousseau
April 29, 1958

Mac-Neish copy

THE WEAVER SITE

Twenty Centuries

of

Illinois Prehistory

Donald E. Wray, Univ. of Illinois
Richard S. MacNeish, National Museum of Canada

and

A Note by

Paul Parmalee

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Another debt of gratitude must be given to the late Mr. Abner Garren, who offered the free use of his property as a parking place, dressing room, and potsherd processing lounge for many years. He provided many clues to archaeological features which would otherwise have been overlooked; he also gave much advice, some of it unwanted, about the current manners and customs of the local inhabitants. Another informant, Mr. Branchfield, was of great assistance in the location of sites and in the recollection of the original setting.

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PROLOGUE

It is difficult for us to imagine that our particular way of life could disappear completely. We do not expect to vanish even in the age of hydrogen bombs, artificial satellites and intercontinental missiles. The story of the Weaver site indicates that many peoples have lived and have disappeared without the assistance of these modern devices. The Hopewell people and their culture collapsed and disappeared more than 1000 years before the arrival of Europeans and industrial civilization. This shows that great human endeavors can and do fail.

The efforts towards civilization which were made by the people we call Hopewell did not continue as a part of the heritage of living persons. What we know of them is the result of the efforts of a few people to reconstruct a way of life which does not exist in our time. This attempt to restore and explain an early system of social activity and beliefs is necessarily limited by the lack of a written language and the uncertainty of interpretations about the living habits of people which are derived only from the physical objects and burials which they left. The life of the Hopewellian people as it has been interpreted in recent years seems to be outstanding in human history for two reasons: these people had remarkable artistic ability which they showed in their stone carving and pottery; they also had great ability in establishing and maintaining some kind of political organization over a wide geographic territory.

The effigy pipes and other stone, copper and bone objects, and the endless pottery designs, indicate the presence among the Hopewell people of individuals who possessed a high degree of artistic ability and inventive genius. This element in Hopewell culture was recognized as soon as the first

mounds had been excavated, and has consistently appeared wherever classical Hopewell remains are found.

The establishment of a standard pattern of religion and ritual over the eastern third of the United States and Ontario indicates a capacity for social and political organization which is rarely found in preliterate groups and is very uncommon when it is maintained for several centuries without the benefit of radio or helicopter. The extent of control and the geographic span, extending from Kansas to New York and from Ontario to Tennessee suggests that an effective system of religious or political organization was established and imposed upon all of the local cultures which had developed out of the late Archaic period. A corollary of this standardization was the opening of widespread trade routes across hundreds of miles of varied territory so that rare and strange materials could be utilized in regions far away from the places where these materials originated.

We still do not know why the Hopewell culture should suddenly explode and expand into all of the areas which it eventually occupied nor are we certain about where it began. Neither do we know why it should have collapsed, but the findings at the Weaver site tell us something about the way that this happened. The Weaver material also presents a rather clear picture of the way in which Hopewell culture was expressed in the mounds and villages of Fulton County.

The Spoon River Mississippian people are closer to the modern world because they are more recent and some of them survived to give names to localities and towns which still exist—such as Illinois, Peoria, and Kaskaskia. To some degree they also helped to define modern political units including the

State of Illinois. The reason for their decline is well known. New diseases and new methods of warfare which were introduced by Europeans had wrecked them before there was any actual penetration of white men in any numbers.

The culture of the Mississippians, including the Old Village and Spoon River people at the Weaver site, was another effort to build a settled permanent way of life in the Illinois valley. There was not so much standardization as in Hopewell but there was widespread trade, a settled town and village population, and comparative peace for a time. The actual number of people living in the Midwest during Mississippian times was greater than ever before as can be seen by the size and number of villages and cemeteries of this time. The Mississippians came very close to achieving the living standards which until a few generations ago were common in Europe. They were destroyed.

You who read this report are members of the third period of somewhat civilized life in the Midwest. You should remember that it was tried twice before.

CHRONOLOGY OF THE WEAVER SITE

1850	The Weaver Homestead
1600	End of Spoon River occupation - F 236-237-228
1200	Old Village - Maples Mills - F 920
1000	Maples Mills
500	Weaver Focus
0 A.D.	Late Classic Hopewell House
200 B.C.	
500 B.C.	Early Hopewell and building of mounds 230-231-232
600 B.C.	Traces of Black Sand and Liverpool
3000-6000 B.C.	Scattered Archaic remains

CHRONOLOGY OF WEAVER SITE EXCAVATIONS

1925. At unknown times prior to this date there had been random digging in the central group and in 228. Some of this was done by curiosity seekers in the neighborhood such as Mr. Garren; other work was the result of the widespread collecting which was done during the 1880's and 1890's through Peoria and Fulton counties.

1929-30. Frank Solomon dug extensively in the central group and concentrated primarily on the three large mounds F 230, 231 and 232.

1933. The Wray family began their exploration with surface collection and examination of the drainage ditch which at that time was subject to rapid erosion. Unknown diggers had pitted 228 and some of the mounds in the south group in this year.

1934. A number of sections were made along the drainage ditch and the first dog burial was uncovered.

1935. The first large section was made through the side of 228 and observation was made of the road-cut which largely destroyed the three large mounds of the central group.

1936. The Spoon River Village, F 236, was tested extensively and a burned house site was uncovered.

1937. The second major cut through 228 was made.

1938. Work was limited to test pits in the village since the major attention of the Wrays was devoted to another site (904).

1939. A small Hopewell Mound, 907, was opened and it proved to be a log crypt.

1940. A Spoon River house site and adjacent Maples Mills cemetery were uncovered in V 237.

1941. Another house was opened in V 237 and a Hopewellian sweat house was found in the Garren field.

1942. The fourth Spoon River house was dug in V 237.

1943. A large classical Hopewell mound O 234, was opened near the Spoon River Village F 237. The large Eagle effigy pipe was discovered in the East Mound group on Duck Island.

1944. The small Hopewell mound, 910, was dug.

1945. The University of Chicago took sections from the central portion of the Village 229. Four mounds in the south group were opened and tentatively classified as Weaver Focus.

1946. The Old Village component, V 920, was identified and a complete house was excavated. Three mounds of the south group were opened.

1947. Work was concentrated on the two late Weaver cemeteries 913 and 925.

1948. Two more of the south mounds were dug; the second Old Village house was opened and a small cemetery, 914, was discovered next to 228.

1949. Systematic examination of the central mound group began and an extensive floor of burned clay was located near the Garren house.

1950. Examination of the central mound group completed.

1951. The entire season was devoted to the opening of the Late Classical Hopewell house which yielded the C 14 date 2300±250 B.P. (300±250 B.C.).

1952. Systematic trenching through village deposit at the base of the bluff.

1953. Continuation of the work in 914 and the location of the third Old Village House.

1954. Trenching in 228 in an area previously covered by dense vegetation.

1955. Completion of work in 914.

Fig 1 – map of Illinois U.S

Footnotes
Remember —
Griffin is 4
and
Kelley 4A.

THE WEAVER SITE

INTRODUCTION

Chapter I

The name of the Weaver site and the pottery type which bears this name has appeared increasingly in the archaeology literature of the Middle West. This attention is justified by the establishment of a 2000-year sequence in the Central Illinois Valley and by the identification of two new culture periods; the Weaver Focus, which is Late Hopewell, and the Garren Focus, which is Old Village Mississippian. These refinements of cultural history are rendered more valuable by the location of the Weaver site in an area which has already been the subject of careful analysis. The Weaver material can be related to the findings of Cole and Deuel,[2] MacNeish,[3] Griffin[4] Kelley[4A] and McGregor.[5] These comparisons give an increased appreciation of the Weaver site and its neighbors and in part lead to the important conclusions which can be derived from Weaver.

Previous reports have emphasized the Weaver Focus and its relationship to Classic Hopewell and to the continuous Woodland culture tradition, which provided the basis for Hopewell in the Illinois Valley. The Weaver site is, in fact, a complicated aggregation of mounds, villages, and cemeteries ranging from Archaic through Red Ochre, Early and Late Classic Hopewell (Ogden Fettie) Weaver Focus, Maples Mills, Old Village, and Spoon River. This extensive occupation over a long period led to serious difficulties in the establishment

of a proper sequence, particularly in the village areas. There are many instances in which a particular part of the main village area had been disturbed three or four times by pits and by house construction so that the pottery and artifacts did not reflect a clear stratigraphy.

The Weaver site as here defined is the cluster of remains focused around the area where Duck Creek enters the valley of the Illinois River. This location was desirable in terms of primitive economics because of the natural combination of the water supply, areas for woodland and prairie hunting and the presence of large areas of lake which provided fish and shell fish and were a major feeding ground for wild fowl. The combination of the various sections of the Weaver site is considered justifiable on the basis of the cultural relationships among these components and the common economic adjustment to the physical resources.

The Weaver site consists of 68 mounds, four cemeteries, and four separate villages. These can be referred to as the Weaver site proper, the Betts group and the Westerfield site. Each of these has a village and associated group of mounds and cemeteries. The Weaver site proper includes all of the periods which have been mentioned. The Betts site has three Hopewellian mounds but the village areas are Spoon River. The Westerfield group has not been examined enough to determine its cultural affiliation but the mounds appear to be Woodland. For convenience in reference, we have designated five geographic subdivisions of the site, which have some cultural meaning as well as locational.

The mounds which are in the Village 229 are referred to as the <u>Central</u> group; the Duck Island mounds are the <u>East</u> group; the Betts mounds and village are the <u>North</u> group; the cemetery 228 and the surrounding mounds are the <u>West</u> group; the scattered mounds and cemeteries below the Weaver house are the

South group; the Westerfield site is not part of this directional scheme.

The Weaver site has a long history of excavation. Prior to 1900 there was extensive looting of the big cemetery now referred to as F 228, which is Spoon River. The upper levels were almost completely destroyed during this period and suffered from much erosion while under cultivation. Ab Garren told of bones, pottery, and other materials being exposed each spring. In 1927 Frank Solomon opened several Hopewell Mounds from the Central group and recovered platform pipes, copper celts, and bone pins, which are now on exhibit at the Dickson Mounds Park. Between 1930 and 1933 commercial diggers again looted F 228 and several mounds in the South group. In 1935 the construction of a new highway resulted in the partial destruction of two of the largest mounds in the Central group. A drainage ditch which was cut through the main village after World War I destroyed a portion of the richest deposits.

The Wray family began excavations at Weaver in 1933 and continued work for 25 years. This persistent effort finally resolved the major problems which were posed, and surprisingly, showed that major deposits of material from all periods were present in spite of the damage which had occurred. Students from the University of Chicago, under the direction of Richard S. MacNeish, made test excavations in 1944 and 1945 for the specific purpose of defining the Weaver Focus. Most of the present report is derived from the results of the Wray and the University of Chicago excavations.

Recent Changes in the Site

Physiographic changes in historic time must be considered in the interpretation of the Weaver site and its relation to the physical setting as it is now and was in the past. The most profound difference is a result of the draining

of the lakes and back waters which originally covered most of the valley bottom land. At the same time the channel of Duck Creek was relocated by dredging and dykes so that it no longer flows as close to the village as it once did. Until the building of the Liverpool drainage district shortly after World War I there had been a system of lakes and marsh which extended to within a few hundred feet of the Central mound group and the edge of the village. This provided a waterway from the Weaver site to the Clear Lake site and was also a major source of food. The present condition gives the impression that the village was set back from the water, which was not the case.

Cultivation has naturally reduced the height of mounds and obscured other details of surface contour. In two instances features were "rescued" just before they disappeared. Mound 907, in the middle of the Mississippian Village 236, would not have been found except for the information of Mr. Garren who recalled a "Four-foot mound" which he had noticed about sixty years ago. This structure was located only by belly-level sighting across a field of neatly-cut wheat stubble. (The same worm's-eye view was used on the west and south groups). A number of house sites in 237 were visible as pits and on the first plowing could be recognized as dark areas. After three years of cultivation these features could be located only by excavation.

The first and second generations of the Weaver family had cultivated the side and top of the bluff above the village 229 and had plowed over the west mound group. This hillside farming was a common practice in the decades after the Civil War though it is now largely abandoned and the hills are in pasture. The years of cultivation resulted in the erosion of the west mounds and contributed to the destruction of the upper levels of the cemetery 228. Mr. Garren remembered that the top of the hill "looked like it had snowed"

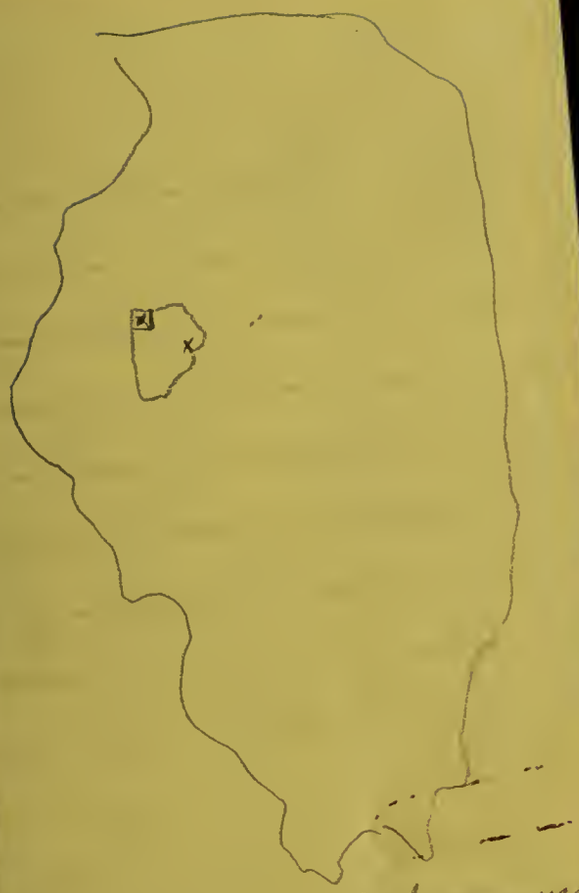
because of the numerous fragments of bleaching bones.

This erosion produced a stratigraphic phenomenon in those portions of F 229 which are close to the base of the hill. In many of the sections there is a layer of mixed loess and loam which is sterile except for very small bits of Mississippian pottery. This layer extends over the village deposit and is immediately under a thin modern sod line. This recent deposit, along with the more gradual natural erosion, accounts in part for the depth of the village material along the base of the bluff. Another instance of extreme erosion occurred in the small field which Mr. Garren cultivated long after the rest of the hillside was in pasture. In the upper part of the field, (immediately above the Old Village houses) the top soil had been almost completely removed and redeposited a few hundred feet below.

The drainage ditch which runs along the base of the bluff and cuts through the upper portion of the village was dug as a part of the Liverpool Drainage Project. It diverts the stream which once ran along the south border of the village into Duck Creek. For many years the ditch was subject to acute erosion and provided a cross-section of the village from which a great deal of material was collected. In recent years it has been stabilized and further destruction of the village from this cause is unlikely.

At present it would seem that the Weaver site and its environment is not likely to suffer further changes of any large scale. The pattern of farming is restricted to comparatively level areas and at worst this can result only in the gradual flattening of the mounds which occupy such locations. Since these have already been explored,there is little to be lost from this operation. The areas in pasture will remain as they are for an indefinite period of time and it is very unlikely that they would ever be returned to cultivation. The only possible threat to the site which might occur has been

the possible introduction of strip mining. A number of test pits were made in the bottom land, two of them in the middle of the village 229. The opinion of the operators was that coal was not present in worth-while amounts so that this danger, which has been a real one in other parts of Fulton County, appears to have passed over at the Weaver site, at least for the present. Most of the mounds which seemed important have been excavated and are reported in this document. There are good test sections still present in the cemeteries and a great deal of completely untouched village deposit for future analysis if it should appear desirable.



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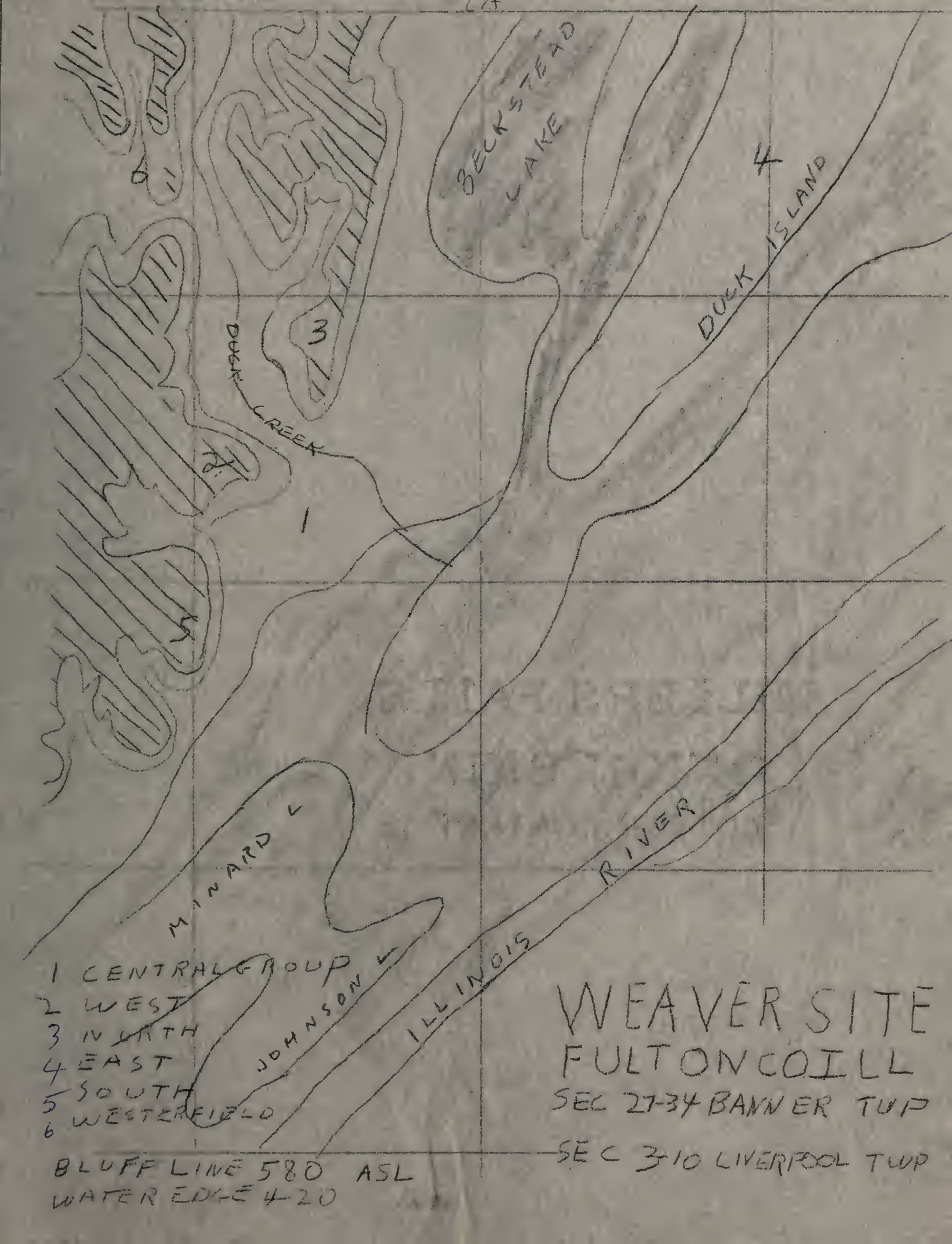
BECKSTEAD LAKE
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JOHNSON L
ILLINOIS RIVER
1
2
3
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5
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1 CENTRAL GROUP
2 WEST
3 NORTH
4 EAST
5 SOUTH
6 WESTERFIELD
BLUFF LINE 580 ASL
WATER EDGE 420
WEAVER SITE
FULTON CO ILL
SEC 27-34 BANNER TWP
SEC 3-10 LIVERPOOL TWP

MAP OF FULTON COUNTY IN NORTH AMERICA

and

WEAVER SITE IN FULTON COUNTY.

CHAPTER V

THE WEAVER SITE CONCLUSIONS

SUMMARY

The major occupations of the Weaver site date from the beginning of the Classic Hopewell period at about 500 B.C. to the end of the Early Spoon River culture around 1600 A.D. The start of the Hopewell occupation may not be quite as early as that which is found at Havana but can not be more than a century or two later. The sequence of Hopewell culture at Weaver appears to be unbroken from its founding until the beginning of the Maples Mills and Old Village occupations almost 1500 years later. The Maples Mills and Old Village remains indicate a time in which different people and conflicting traditions met each other. These differences were eventually solved by the extermination of the Hopewell and Weaver cultures and by the absorption of Maples Mills by the Old Village Mississippian invaders. Succeeding generations established the Spoon River tradition and constructed the cemetery F-o-228 and the big village F-v-227.

We speak of "twenty centuries" at the Weaver site, meaning the Hopewell and Spoon River periods. The total occupation of the Weaver site is more like 5000 years, dating back to Archaic times around 2000 to 3000 B.C. The late Archaic hunters left a few relics of their presence in the large stemmed projectile points and a few grooved axes. There may have been a permanent camp site at Weaver but if so, it must have been thoroughly disturbed by the later occupations. At present the Archaic period is known only by scattered surface finds in the villages F-v-229 and F-v-237. Similar material is common to much of Fulton County and suggests a widespread occupation for a long time.

There are small but persistent indications of pre-Hopewellian cultures. These are represented by sherds of Black Sand Incised, Liverpool Cordmarked, and Morton Incised pottery. These appear in very much the same random fashion as does the Archaic material. There is no particular spot in the Weaver site which shows a concentration of this early Woodland pottery, yet sherds of these types pervade the entire area. We must conclude that Weaver was used as a camp site in these early Woodland times though perhaps not as a permanent abode.

The beginning of the Havana-Hopewell tradition between 500 and 400 B.C. marks the beginning of the heavy deposits which have been the target of excavation for many years. In the 400 years of the original Hopewell occupation the central mound group was erected, along with the east mound group on Duck Island and the two large Hopewell mounds in the north group. The first major village deposit was laid down in F-v-229. This was the period of broad social and economic relations with other parts of the country which is reflected in standardized artifact types and wide exchange of exotic materials such as obsidian, copper, and sea shells. This was also the time in which the pottery makers, in the Illinois valley at least, went completely wild and used their imaginations to create every combination and variation of stamping, trailing and polishing techniques which they could devise.

About the beginning of the Christian era much of this enthusiasm had evaporated; new mounds were added to the Central and North group but they were not as large as those previously constructed; broad trade relations continued but there was a reduction in the amount of foreign or strange material which was brought home. The pottery makers either ran out of ideas or were limited by social restrictions to a few standard products such as the Classical Hopewell

and Hummel stamp. The variations in design which were so impressive in earlier generations were no longer made. The oval Hopewell house belongs to this time.

By 500 A.D. the social and economic contacts between Weaver people and far away places had disappeared and the Weaver people were forced to rely almost entirely upon their own products and used materials which were locally available. The ceremonies of burial were focused on the South mound group which was used almost exclusively at this time. The pottery makers developed a variety of light thin vessels with simple decoration and gave up the fancy stamped designs and elaborate Hopewell ceremonial pottery. These were remembered only occasionally in very sloppy imitations. Pottery of this time is local in nature but as has been shown there are general ideas which spread over much of the eastern United States and indicates continuing social contracts even though the uniformity of Classic Hopewell had disappeared.

We do not know whether the Weaver people fell apart socially or were actually beaten down by invaders. We do know that about 800 A.D. there was an invasion or movement of people from Wisconsin or Michigan who brought in what we now call the Maples Mills or Tampico culture and replaced whatever remained of Weaver. This was the beginning of a time of great change which marked the end of the long Hopewell tradition and was finished 400 years later with the establishment of the Spoon River culture. Two new groups of people occupied the Weaver site: the Maples Mills people who came from the north; and the Old Village people who came up the river valley from near St. Louis. These two peoples and their respective traditions met and blended at Weaver and left their relics in the Garren Focus houses. A similar mixture occurred at other nearby villages.

Out of this melting pot came the Spoon River Focus. The center of village life was moved from F-v-229 to the north villages F-v-236 and F-v-237. Here the houses of the Spoon River people clustered around the already ancient Hopewell mounds. The house pits which are still visible are remnants of this time. The great cemetery F-o-228 gradually accumulated at the edge of the bluff above the older village.

The Spoon River occupation at the Weaver site lasted from about 1200 to 1600 A.D. Around 1600 the site was abandoned and was not occupied again until the American occupation and the arrival of the Weaver family. Why the Spoon River people left a place which had been favoured for so long can not be explained. We do know these people were not destroyed in 1600 for they continued to live in other places such as the Dickson Mounds site and Kingston Lake for nearly a century after they left Weaver. Whatever the reason may have been for leaving, the abandonment of the north village was the end of the long history of the Weaver site.

INTERPRETATIONS AND SPECULATIONS

Archaic Times

Life in the Illinois Valley in the centuries immediately after the retreat of the glaciers must have been hectic and rather uncertain. The only weapons available were light and heavy spears, propelled with the use of a spear-thrower, plus grooved axes, clubs, and short weapons such as knives. People depended upon hunting for their food and as a result there were very few permanent camps and there was little need or use for perishable goods such as pottery. This wandering did result in the scattering of spear and arrow points and axes over a large portion of the landscape. Several projectiles and two axes are the only remains of this period from Weaver.

It is strange that people who relied so much upon natural sources of food did not congregate in greater numbers around the lakes and marshes of the Illinois River as did later people. Probably the larger size of the river and the rapid changes in the bottom lands because of the draining of glacial water made these areas undesirable for occupation. The known sites of Archaic times seem to be located mainly in the small branches or tributaries to the Illinois River. Location in these places was probably determined by a desire for shelter from the prairie winds as well as an effort to locate the wintering spots of animals. There is no recognized place of burial for the early Archaic people so that we have no idea of what their religious beliefs or practices may have been.

Early Woodland

Toward the end of this time, when people had begun to use pottery and to settle in regular camp sites, there were a number of mounds erected which we now classify as Red Ochre. These are extremely rare and reflect the wandering way of life which typified these people.

At the end of Archaic times there were a number of cultures in which people used pottery and appeared to be developing a more settled way of life. The remains of this time are known as the Black Sand, Morton, and Havana cultures. Camps remained quite small and in most instances are represented only by fragments of pottery and large projectile points. There are very few instances where a "pure" occupation of this time can be found. It does seem that the increase in the number of sites of this time—roughly 1000-500 B.C. must indicate an increase in population and perhaps an increasing reliance on fixed sources of food such as fish, mussels, and the wild fowl which inhabited the river valley. These people began an artistic development, particularly in pottery, which was to last for a thousand years. Through the combination of fairly simple methods of decoration such as stamping and cord-marking and the use of alternate rough and polished surfaces they were able to produce a variety of artistic designs which has still not been recognized and appreciated to the full extent which it deserves.

Havana—Hopewell

The Ogden Fettie Focus

This local evolution of what we call "Havana" ware was very shortly overcome or included in the great expansion of the Hopewellian culture. At the

Weaver site as in other places in the Illinois Valley the mixture which resulted from the Hopewellian conquest was a combination of the local Havana tradition, which continued to be the pattern of local life, plus a greatly expanded system of trade contacts and ideas over the eastern half of the United States. This expansion is marked by the establishment of many new villages and by the beginning of the heavy occupation of the Weaver site. This gives us the reason for saying that the history of the Weaver site really starts around 500 B.C.

We still do not know what gave the Hopewell people the ability to suddenly impose their way of life over such a large territory. It is clear that the local residents kept on with their own customs so that in most villages in Fulton County there is a predominance of Havana and Weaver type artifacts and Classical Hopewellian material is always a minority. The coming of Hopewell marked a great expansion of population, and most of the sites which are well known from excavation date from this time. Among these are Ogden Fettie, Clear Lake, Dickison, Liverpool, Steuben, as well as Weaver.

There was a great extension of trade relationships during the Hopewellian occupation. The evidence of this widespread contact suggests a rather unique achievement in economic and political relationships for a so-called primitive people. Marine shells from South Carolina and the Gulf of Mexico were brought to inland regions. Obsidian which was probably obtained from Colorado was carried from Kansas to Ohio. Copper from Michigan and Wisconsin was used in larger amounts and in a greater variety of forms than in any succeeding cultural period. The so-called classical Hopewellian pottery was distributed over a wider area in more standardized forms than occurred in the succeeding Mississippian cultures. All of this evidence indicates that there was a time

in which a group of people established domination over a very large geographical territory and maintained trade relationships within the area and points outside of it for a considerable time. This can be seen in the Weaver site in the presence of copper axes, ocean shells, mica, and effigy pipes which probably came from Ohio.

The Hopewell culture with its extensive earthworks and ceremonial grave equipment could hardly have been produced by a hunting and fishing economy. The introduction of agriculture was the great force behind the Hopewellian expansion. The digging stick, which was widely used in both North and South America, would not leave any archaeological evidence except in very dry climates. We know that planting was practiced in Classical Hopewell times since we have many stone and shell hoes, such as were found at Weavers in the Hopewell house and charred corn has been found in related sites such as Clear Lake and the Poole site.

This same question arises when one considers the apparently great increase in population in Hopewell times. Many sites are known which date from Archaic or early pottery horizons but these are small in number and size compared to those which appear at the time of the earliest recognizable Hopewellian entry into Central Illinois. The momentum, vigor, and originality which characterized Hopewell show that some new force or forces entered the history of the Middle West between 1000 and 500 B.C.

The most likely interpretation is that the cultivation of corn and perhaps other vegetable crops provided the primary drive and support for Hopewellian expansion. The areas in which Hopewell was most developed and had the strongest impact are approximately those areas which are today known as the "corn belt."

This is a region in which the soil and climatic conditions are optimal for the growing of maize. This does not mean that domesticated forms of corn were developed here. It does suggest strongly that when corn was introduced to this region it immediately provided an economic base for higher cultural development at a more rapid rate than would have been true in other places.

Reliance upon a new source of food which was at the same time dependent on uncontrollable factors such as rainfall and insect infestation naturally would lead to some reliance upon an appeal to religious or magical efforts to secure a good crop. This idea is still present in the minds of many people who feel that planting should be guided by phases of the moon or other natural conditions. The introduction of such a revolutionary new idea as agriculture to people who had not known it before would lead to a great reliance upon persons who claimed to have some mystical or magic control over the annual yield. This would provide a good reason for the appearance of an elite or "upper crust" which is represented by the relatively few people who were buried in the mounds with such rich grave offerings and the indications of a special high status among their contemporaries. It seems probable that the persons who were honored by burial in the Classic Hopewell mounds were the priesthood of a religion which claimed the power to regulate and determine the outcome of the crops.

If the essence of "Classic Hopewell" is viewed as the expression of a religious cult, then certain differences in local village pottery and artifact types become explainable. We could then view Hopewell culture as a ceremonial complex carried by a priesthood which was introduced over a wide area among many local tribes who already possessed their own particular traditions. The

coming of the Hopewell priesthood and their agricultural techniques resulted in the settling of the tribal groups into permanent villages where they became subject to the rules of the priesthood, erected mounds, and provided for the upkeep of the priestly group "in the manner to which they were accustomed."

This special attention at the Weaver site resulted in the building of the big mounds of the Central Group and the scattered mounds in the North Group. This was the time during which new materials were brought in and special artifacts such as stone ear plugs and platform pipes were manufactured. It seems, however, that the domination of the Hopewell priests had only a limited effect upon the manners of the common people. There are examples of the copying of fine Hopewell pottery in the Havana ware which was ordinarily used for plain cooking vessels. There are also examples of crude copies of platform pipes and ear plugs. These indicate that the local population was absorbing some of the ideas of their superiors. It is significant that there was no time in which this sort of imitation became very widespread. The local traditions carried through even though the people may have been temporarily dazzled and carried away by the impressive manners of the "upper crust."

At the peak of its development, Hopewell culture represented a human achievement which must be ranked very high in comparison with other preliterate people. Material objects and, obviously, non-material ideas were standardized throughout a region which compares favorably in extent with that of the Roman Empire. The exchange of objects and the uniform cultural pattern insofar as ceremonial life is concerned shows that free trade and exchange of ideas were easy and frequent. The organizing of large numbers of persons for public works is indicated by the extremely large mounds and

enclosures and probably in the expeditionary character of the contacts toward the west where obsidian was obtained.

Despite its great achievements, the Hopewell culture disintegrated and disappeared. There has been as much speculation about the end of Hopewell as there has been about its beginning. Common theories account for its decline by invasion of other peoples or by some climatic change which made agriculture less productive or perhaps impossible for a short period of drought. Both these influences may have played their part. It does not seem at this time, however, that there was a sudden and dramatic collapse of the social organization or material culture. There are indications from a number of places that Hopewell went through a long and piecemeal degeneration which may have lasted from 200 to 500 years, ending, perhaps, about 450 A.D. During this decline there seemed to have been an end to widespread trade relations and a resulting disappearance of foreign and exotic materials. There was also a decline in the importance of building large mounds and ceremonial enclosures and placing of large amounts of grave offerings with burials of the priestly class. The idea of such a class and the notion of giving them special burial consideration did persist in many regions, however, and can be seen in the mounds of the Weaver Focus in the South Group.

As the cosmopolitan nature of the ceremonial culture weakened, the local traditions became more important and regional differences reasserted themselves. Since there is no sign of a population decline or of foreign invasion during this time, it seems more likely that the breakdown of Hopewell was a result of internal political differences, or, possibly, a reassertion of local tribal independence after the use of agriculture had become familiar and

trustworthy. The ancient Havana tradition had been altered during the centuries of Hopewell dominance and would no doubt have changed anyway as fashions do. By the time the trade and political connections with other parts of the country had broken down, the Havana tradition had been changed into what we call the Weaver tradition. The differences in pottery have already been described. One additional change which may have been very important was the introduction of the bow and arrow and the gradual abandoning of the spear and atlatl. This not only changed the kind of projectile points which was most useful but probably also switched the hunting habits which were still important to these people. It may be that the use of the bow and arrow made available new sources of food, and new methods of warfare, which helped to break up the old order.

The population which emerged around the year 600 A.D. was thus a people who had modified the manner of living of their ancestors of 500 B.C. but had in many respects returned to the localized tribal way of living which had existed before Hopewell. Practically all remnants of the great Hopewell culture and its economic and artistic inspiration were abandoned or stifled. The same process seems to have gone on in all parts of the widespread Hopewell territory.

One can speculate that the Hopewell culture was in its earlier stage a powerful cohesive cult or religio-ceremonial phenomena which was widespread over a large area and had been grafted onto a number of different kinds of cultures or peoples, and that gradually it degenerated into a series of individual different local cultures (such as Weaver) and that the vigor of the original cult gradually disappeared. On a still wider basis, one wonders whether all religions do not rise rapidly to a climax, spread aerially, and then

lose their vigor, changing into local cults that eventually die out.

Another possibility comes to mind concerning the Weaver Focus and its relationship to the earlier Hopewell culture. What other cultural phenomena may be correlated with the decline of ceremonial and aesthetic features? Is the generalization established for northeastern Mexico true for the eastern United States in the Hopewell and just post-Hopewell period? That is, "in (at least) cultures that developed to the Formative stage, a decline in size of settlement parallels a decline in ceremonial and aesthetic features in so far as these are evidenced in the material remains."[57] The questions of why the cult declines or why the settlements diminished in size is still totally unknown. It certainly is a problem worthy of further investigation. Perhaps some way, some day, we may know the why's and wherefore's of various cultural processes. We only hope that we have enough time left to us to do this.

Maples Mills

This occupation at the Weaver site and throughout the middle portion of the Illinois Valley represents a complete break in tradition with everything which had gone before. For many years there have been two puzzles in the archaeology of Illinois; one is the peculiar pottery type which appears in the culture known as Maples Mills; this is characterized by square castellated rims; rim decoration consists of geometric designs made by applying single strands of twisted cord. Another characteristic is the bone or antler harpoon such as occurs in the Fisher Focus in the northern Illinois River valley. These traits, particularly the pottery, appear in the central Illinois valley after the decline of the Hopewell and Weaver tradition and seem to indicate a movement of people from the North or a new cultural impetus or both. The

widespread impact of Maples Mills and its apparent short duration probably indicate an actual movement of people.

New refinements in our analysis of culture history indicate that Maples Mills comes after Late Hopewell but before the Spoon River expansion, though there is an overlap between Maples Mills and Old Village. The great Hopewell tradition, after passing through several stages, finally degenerates into a variety of localized Woodland cultures which in Central Illinois are represented by the Weaver Focus and in the lower valley by the Jersey Bluff Focus. These late simplified or residual Hopewell cultures are characterized by grit-tempered pottery with vertical or incurving rims (the so-called cocoanut shape) decorated by cord-paddling, nodes, notching, and cord-wrapped stick stamping. This pottery seems to be derived from Hopewell traditions although there may have been other influences from both North and South. These late Woodland or post-Hopewell types continue into the Maples Mills culture although they rapidly become lost in the new tradition.

The case for an actual invasion of new people is strengthened by changes in living habits and apparently in the type of weapon which was preferred. Villages such as the Mossville site represent a complete break in the long-standing occupancy of the old Hopewell dwelling places. The shift from small notched and stemmed projectiles to the thin triangular type probably indicates an increasing use of the bow and perhaps improvements in the structure of bow and arrow over those previously known in the Weaver Focus.

The bone or antler harpoon is known in Illinois mainly in the early stages of Fisher culture. Here a variety of forms occur. Harpoons disappear in the later stages of Fisher and do not occur in other upper Mississippi cultures of Illinois. For reasons which are not yet known, the use of the harpoon was not

common among the Maples Mills people in Fulton County although one of these artifacts was found in a Maples Mills pit at the Crable site. They seem to be completely absent from the southern parts of the valley.

Maples Mills pottery and the harpoons stand out in contrast to both the earlier and later traditions in Illinois. when the distribution of these traits, castellated rims, collared rims, cord-impressed decoration, and harpoons are plotted, there appears to be contiguous area of occurrence around the lakes. This again confirms the idea that the Maples Mills occupation in Central Illinois was a temporary invasion by alien people.

In the northeastern area the harpoon appears in the Lamoka culture, which is pre-Iroquoian. Later in the Owasco culture we find the castellated rim with geometric marking. In this eastern area the rim decoration is very seldom done by cord-impression. Usually incised lines or the edge of a shell are used for marking but the arrangement of design motifs is very similar to that of Maples Mills. These traits continue into the historic Iroquois culture where the castellated rim is characteristic.

In Ohio, harpoons are found in the Intrusive Mound Culture,which is post-Hopewell. In this case the pottery is decorated with cord-wrapped stick stamp and punctate. The Younge culture in southeast Michigan has scalloped and collared rims and triangular projectile points. In northwest Ohio the Whittlesey culture has globular vessels with collared rims decorated with punctates, cord-wrapped stick stamp,and triangular projectiles. Harpoons have also been found in Ohio in the early stages of the Fort Ancient culture.

Comparable traits appear in several cultures in Wisconsin and Minnesota. The effigy mound people used one-sided harpoons but made pottery comparable to Maples Mills. It is interesting to note that the old Copper culture of

Wisconsin and Michigan had harpoons, which indicates a considerable antiquity for this artifact in northern Woodland areas. They are also found in the Laurel culture of northern Minnesota.

The famous site of Aztalan contains pottery which is almost identical with Maples Mills. It seems likely that this village too was occupied simultaneously by people who had both the Maples Mills and the Old Village cultural traditions.

Traces of Great Lakes cultural traditions seem to extend into the plains. Harpoons occur in the Nebraska culture of east Nebraska and Kansas along with globular pots with straight or flared rims, triangular projectile points, and such typical plains traits as the buffalo scapula hoe. This may be another instance of invasion or migration since these harpoons are far removed from other known instances.

The specific combinations of these traits and the numerous variations indicate many regional differences. However, the overall distribution suggests that all of these traits form part of a culture area which centered around the Great Lakes and from time to time spread into adjacent regions.

On the basis of radio carbon dates, the Maples Mills culture at the Weaver site must have existed somewhere between 800 and 1000 A.D. The appearance of these cultures within a relatively short time and in areas where they had not been before suggests the following interpretation: after the decline of Hopewell, various tribal groups from the Great Lake area expanded southward and brought with them the traits which appear so alien to Ohio, Indiana, and Illinois; this expansion may have also marked the beginning of Iroquois culture in the northeast. In the Midwest these traits were blotted out by the Middle Mississippi development although in the Plains some remnants

continued into historic times.

The fact that the castellated pot and the harpoon appear in two different cultures in Illinois raises new questions. It seems at the present that the Maples Mills culture and its local equivalents was somewhat earlier than Fisher culture. Harpoons are rare in Maples Mills, though the other traits, castellated rims and triangular projectile points are characteristic. Furthermore, the Maples Mills pottery traits seem to have a much wider distribution than does the harpoon. This discrepancy appears in the other areas too. It may mean that several cultural invasions are indicated. However, early Fisher, which is the period where the harpoons occur, must be close in time to Maples Mills since early Fisher is a derivative of Old Village, which is partly contemporaneous with Maples Mills in Fulton County. The interval of time involved is not great so the differentiation of traits may result from tribal preferences rather than different periods of occupation.

In the case of Maples Mills there seems to have been a cultural vacuum left by the decline of Hopewell. This may also have meant a population shift which would have made it easy for any alien group to enter the area. This would have made it possible for varieties of northern Woodland or Great Lakes culture to enter those regions of Wisconsin and Illinois which had so long been occupied by Hopewellian people. Maples Mills actually seems to have spread through southern Wisconsin and into Illinois along the Illinois River. Here Maples Mills people met others who possessed the newly-developed Old Village culture and were stoppe and finally absorbed.

The hypothecated second wave of influence which brought the harpoon to the Fisher culture was also met by Old Village people. In this instance, however, the development was dominated by the northern Woodland influence and

as the Fisher Focus developed it became more and more different from the Spoon River and Trappist cultures farther south. This separation is apparent even in the early Fisher or Langford stage and is partly a result of influences which we do not know about at present.

It seems, therefore, that the Maples Mills culture as it appears at the Weaver site and throughout central Illinois must be accounted for in terms of a widespread movement among people who shared the Great Lakes culture tradition. They were in a sense moving into the empty spot left by the decline of the Hopewell and Weaver people.

The Mississippian occupation

Old Village—Garren Focus

The coming of people from around St. Louis and perhaps farther south marked the start of an entirely new cycle of population growth. At the Weaver site the first settlers of this new era arrived about 1200 A.D. and produced what we now call the Garren component. This consisted of one or more lines of houses along the edge of the old Hopewell village. Remnants of their pottery are fairly well limited and indicate a small and rather compact village. There is no mound or cemetery which can be definitely connected with the Garren houses but it is possible that they began the big cemetery in the West group, which was used by their descendants.

The Old Village people brought with them some new ways of life which enabled them to live more comfortably and to support more people than at any previous time. One of these improvements must have been in agriculture, either through the introduction of improved breeds of corn or by the use of beans as a substitute for meat or some combination of several new vegetable crops. As

the Old Village tradition developed into the Spoon River Focus there ~~were~~ was a constantly increasing number of settlements. Today it is hard to find a distance of more than a mile between villages of this time. It is very possible that exhaustion of soil made necessary a shifting of cultivation plots every few years. Even granting this need for moving around, it still seems that there was a considerable increase in population. This is borne out by the vast cemeteries which accumulated during Mississippian times.

Another improvement was a form of house construction which was superior to anything known before. Square buildings with sufficient room to stand up and move around in, secured from drafts by thick clay plaster and with bark shingles on the outside must have improved health conditions. These houses would compare favorably with many of the shacks which are being occupied today.

There were many additions and changes in the everyday mode of life. Hunting was still an important source of food and the bow and arrow were the main weapons. The small finely-made triangular arrow-heads were employed almost exclusively in Mississippian times along with small tools such as oval scrapers, flaked knives, and celts. There was a heavy reliance on wild fowl, fish, and shell fish.

The pottery forms were made of shell-tempered ware which could be polished, painted, slipped, and incised. The common cooking jars were much smaller than those of the Hopewell period and very much thinner. One might suspect that the use of small cooking jars, along with smaller houses indicates a society in which each family group lived separately and cooked separately rather than a clan arrangement in which many people, more or less related, would live in the same large building and scoop their meals out of the same pot. Other vessel forms are similar to those we use today. There were shallow bowls, plates, and mugs. These mugs have been called beakers and bean pots, but one

might be led to speculate that some of the boys had figured out a way to make beer or wine.

This pattern of life seems to have been so attractive that the Old Village people could move into the Weaver site and adjacent places without too much objection from the Maples Mills people. In the Garren houses at Weaver the two populations lived in the same houses, exchanged ideas on how to make pottery and other artifacts, and, presumably, inter-married. From this time on the Maples Mills culture rapidly disappeared or was absorbed into the new way of life. This marked the end of the Woodland cultures in Central Illinois except for those small numbers of Indians who came in during historic times, such as the Kickapoo and Pottawatomie.

The Spoon River Occupation

After the first settlement of Old Village people had existed for a short time, the focus of life at the Weaver site moved to the north village site. Here the entire landscape was transformed by the deposits of village refuse and by the repeated digging of house floors. In the process of all this activity earlier features such as Hopewell mounds and Maples Mills camps and cemeteries were destroyed or disturbed to a considerable degree. There are three separate areas in the north or Betts village site but these are determined by contours of the land, such as gulleys, and no differences in culture can be detected among them. It seems likely, therefore, that the whole place was occupied at the same time or at least within a few generations.

We can date the Betts village as between 1300 and 1600 A.D. since it came after the Old Village colony and before the age of pyramid mounds. It

was this village, at its height, which resulted in the great cemetery,FC 228. A conservative estimate is that at least 1000 people were buried there. This indicates a sizeable population as the burials are far more numerous than those in all the other mounds and cemeteries at Weaver put together. This is even more significant since the Mississippi occupation took place in no more than 300 years as compared to 1500 years for earlier times. The quantity of village refuse from Spoon River people shows a similar increase in comparison to that left in Hopewell and Weaver periods.

The Old Village and Spoon River people maintained social and possible trade relations with their kin folk down the river. The only objects which were definitely brought in were Busycon shells and small amounts of copper. It may be that some pottery of the fine polished variety came from the south but this is difficult to determine because pottery was becoming fairly well standardized. There are suggestions of contact with people farther north and west, which can be seen in a variety of bone and antler tools and pottery decorations such as scalloping.

This apparently prosperous community was suddenly abandoned. There are no clues at the Weaver site as to why this happened. A similar catastrophe struck many other villages at the same time. Since this would be around 1600 it is possible that European diseases killed large numbers of people. It may also be that tribal warfare made it necessary to congregate in larger centers. We do know that the Spoon River people did not vanish at this time since they went on to an even more elaborate way of life at places such as Kingston Lake and the Dickson Mound. The last stage of this culture can be seen at places like the Crable site, where Spoon River people lived with tribes from west of the Missippi and with at least some people from Missouri.

The sudden end of the Betts village was the finish of the Indian occupation of the Weaver site. The place remained vacant except for wandering hunters from 1600 until the European occupation in 1850.

FOOTNOTES AND REFERENCES

1. (Acknowledgments) Dr. James B. Griffin reports the radio carbon date from the Hopewell House (Univ. of Michigan M-256) as 2300 - 250 years before the present. He notes that mussel shells consistently date earlier than charcoal and suggests that the actual date might be around 1900 years ago. This problem has been discussed in the articles on Carbon 14 dating and is mentioned again in the issue of Science Magazine for October 1956.

2. Cole and Deuel. 1937.

3. MacNeish, Richard S. 1944, p. 41-44.

4. Griffin and Morgan, 1941; Griffin, 1941, p. 1-7.

4A. Kelly, 1933, p. 101-103.

5. McGregor, John C. 1957, p. 272-279.

6. Dickson, Donald "The Weaver Site Mounds" by personal communications. Dickson had a clear recollection of his contact with Frank Solomon although he questioned the accuracy of the latter's reporting. Dickson's version of the large mounds of the Central Group at Weavers was consistent with what Walter Weaver, Sr., and other people had reported.

7. Townsend, Earl C., Jr. 1956, p. 93.

8. Neumann, George K. and Fowler, Melvin L. 1952, p. 175-248, p. 202.

9. Fowler, Melvin L. 1952, p. 131-174.

10. McGregor, John C. 1952. p. 43-94.

11. This pipe has been illustrated and described in the Journal of the Illinois State Archaeological Society. July, 1947.

12. Clark Site - an unpublished Spoon River site immediately north of the Joy Morton Estate. It includes a cemetery and a village which had been dug thoroughly about 50 years ago. The only remains of significance other than the general structure were two small mounds which were being looted by farm boys. A large necklace of ground marginella shells was recovered.

13. Betts Amphitheatre - No other feature of this type has been reported from Fulton County or the entire Illinois Valley. There are vague reports of similar structures from Southern Fulton County and Schyler County but these have not been confirmed. This feature is obviously related to the large enclosures which are so frequent in Ohio.

14. Griffin, James B. 1952. p. 131-154.

15. Griffin, James B. 1949. p. 44-58.

16. The special treatment given to domesticated dogs occurs in the house site, in village burials, and in Mound 234. See Parmalee, this volume.

17. Titterington, Paul F. July 1950. p. 70-71.

18. Fowler, Melvin L. 1957. p. 31. "The use to which these rings was (sic) is highly conjectural. In shape they are somewhat similar to the ear spools or discs found in other Hopewellian mounds -- yet the majority of them are too large to be considered for this purpose. Six had holes drilled in the quadrants. These holes are in pairs. They were not drilled perpendicular to the rim from the outside to the inside but were drilled as diagonal holes which penetrated from the rim to the side of the ring. Perhaps these holes were intended for attaching something to the ring or attaching the ring to some garment or other object."

19. For detailed discussion of new refinements in the classification of Havana—Hopewell cerámics see Bluhm, 1951. p. 324-329.

20. Fowler, Melvin L. 1955. p. 213-225.

21. Dr. Parmalee will discuss the faunal remains in his chapter.

22. Wray, Donald E. 1952.

23. Willoughby, Charles C. and E. A. Hooten, 1922.

24. Cole, F. C. and T. Deuel. 1935.

25. Fowler, 1952; Schoenbeck, 1941.

26. McGregor, 1952.

27. Cole and Deuel, 1935.

28. McGregor, manuscript.

29. Ritchie and MacNeish, 1949, p. 97-124.

30. Griffin, personal communication.

31. Quimby, 1941.

32. Maxwell, Moreau, 1951; MacNeish, 1944; Cole et al, 1951.

33. Black, G., 1941.

34. Fowler, 1955.

35. Chapman, 1949.

36. MacNeish, 1956.

37. Griffin, 1952.

38. McGregor, 1952.

39. Griffin, 1952.

40. Griffin, 1952.

41. MacNeish, 1944.

42. Adams, 1941.

43. Quimby, 1941.

44. Cole and Deuel, 1935.

45. McGregor, 1952; Fowler, 1955.

46. Cole and Deuel, 1935.

47. In the University of Chicago collection only 601 could be found.

48. Cole and Deuel, 1935.

49. Ibid.

50. Griffin, personal communication.

51. Libby, 1951.

52. Crane, 1956.

53. Griffin, personal communication.

54. Crane, 1956.

55. Crane, 1956.

56. Griffin, personal communication.

57. MacNeish, 1958.

BIBLIOGRAPHY

ADAMS, ROBERT McCORMICK
1941 "Archaeological Investigations in Jefferson County, Missouri." Transactions of the Academy of Science of St. Louis, Vol. XX, No. 5, pp. 188-196. St. Louis.

BLACK, G. A.
1941 "Cultural Complexities of Southwestern Indiana." Proceedings of the Indiana Academy of Science, Vol. 50, Indianapolis.

BLUHM, E. "Ceramic Sequences in Central Basin and Hopewell Sites in Central
1951 Illinois." American Antiquity, Vol. 16, No. 4. Salt Lake City.

CHAPMAN, CARL H. "A Study in Classification, Distribution and Sequence of the
1949 Archaeological Cultures of Missouri." M.A. thesis, University of New Mexico. Albuquerque.

COLE, F. C., R. Bell, J. Bennett, J. Caldwell, N. Emerson, R. MacNeish, K. Orr,
1951 and R. Willis. "Kincaid, a Prehistoric Illinois Metropolis." University of Chicago Press.

COLE, F. C. and T. Deuel. "Rediscovering Illinois" University of Chicago Press.
1937

CRANE, H. R. Michigan Radio-carbon Dates. Science, October 1956.
1956

FOWLER, MELVIN L. "The Clear Lake Site; Hopewellian Occupation" in Hopewellian
1952 communities in Illinois. Illinois State Museum Scientific Papers, Vol. V, Springfield.

FOWLER, MELVIN L. "Ware Groupings and Decorations of Woodland Ceramics in
1955 Illinois." American Antiquity, Vol. 20, No. 3. Salt Lake City.

FOWLER, MELVIN L. "The Rutherford Mound, Harden County, Illinois." Illinois
1957 State Museum Scientific Papers, Vol. 7, No. 1. Springfield.

GRIFFIN, JAMES B. and R. C. MORGAN. "Contributions to the Archaeology of the
1941 Illinois River Valley." Transactions of the American Philosophical Society, Vol. 32, Pt. 1. Philadelphia.

GRIFFIN, JAMES B. "Report on Pottery Types of the St. Louis Area." The Museum
1941 Archaeologist, Vol. 7, No. 2. St. Louis.

GRIFFIN, JAMES B. "Cahokia Ceramic Complexes " Notebook No. 1 of the Laboratory
1949 of Anthropology of the University of Nebraska. Lincoln.

1952 Some Early and Middle Woodland Pottery Types in Illinois. "Hopewellian Communities in Illinois," edited by Thorne Deuel, pp. 93-129. Illinois State Museum Scientific Papers, Vol. 5. Springfield.

KELLY, A. R. "Some Problems of Recent Cahokia Archaeology." Transactions of
1933 the Illinois State Academy of Science, Vol. 25, No. 4. Springfield.

LIBBY, WILLARD F. "Radiocarbon Dates, II." Science, Sept. 21, 1951, Vol. 114,
1951 No. 2960, pp. 291-296.

MAC NEISH, R. S. "The Establishment of the Lewis Focus." Master's dissertation,
1944 University of Chicago.

. . . "Middle Woodland Cultures" Transactions of Illinois Academy of
1944 Science, Vol. 37, Springfield.

1956 "Summary of Archaeological Investigations in Southeastern Manitoba" Annual Report of the National Museum of Canada, No. 1942. Ottawa.

1958 "Preliminary Archaeological Investigation in the Sierra de Tamaulipas, Mexico." Transactions of the American Philosophical Society, Vol. 48, No. 2. Philadelphia.

MAXWELL, MOREAU "Woodland Culture of Southern Illinois Archaeological Excavations
1951 in the Carbondale Area." Logan Museum Publications in Anthropology, Bull. No. 7, Beloit.

McGREGOR, J.C. "The Havana Site" in "Hopewellian Communities in Illinois,"
1952 Illinois State Museum Scientific Papers, Vol. V. Springfield.

1957 "Prehistoric Village Distribution in the Illinois River Valley," American Antiquity, Vol. 22, No. 3, Salt Lake City.

NEUMANN, GEORG K. and M. L. FOWLER. "Hopewellian Sites in the Wabash Valley" in
1952 "Hopewellian Communities in Illinois" Illinois State Museum Scientific Papers, Vol. V. Springfield.

QUIMBY, GEORGE C. "The Goodall Focus: An Analysis of Ten Hopewellian Components
1941 in Michigan and Illinois." Prehistory Research Series, Indiana Historical Society, Vol. 2, No. 2. Indianapolis.

RITCHIE, W. A. and R. S. MAC NEISH. "Pre-Iroquoian Pottery of New York State"
1949 American Antiquity, Vol. 15, No. 2. Menasha.

SCHOENBECK, E. 1941 "Cultural Objects of Clear Lake Village Site" Transactions of Illinois Academy of Science, Vol. 34, No. 2. Springfield.

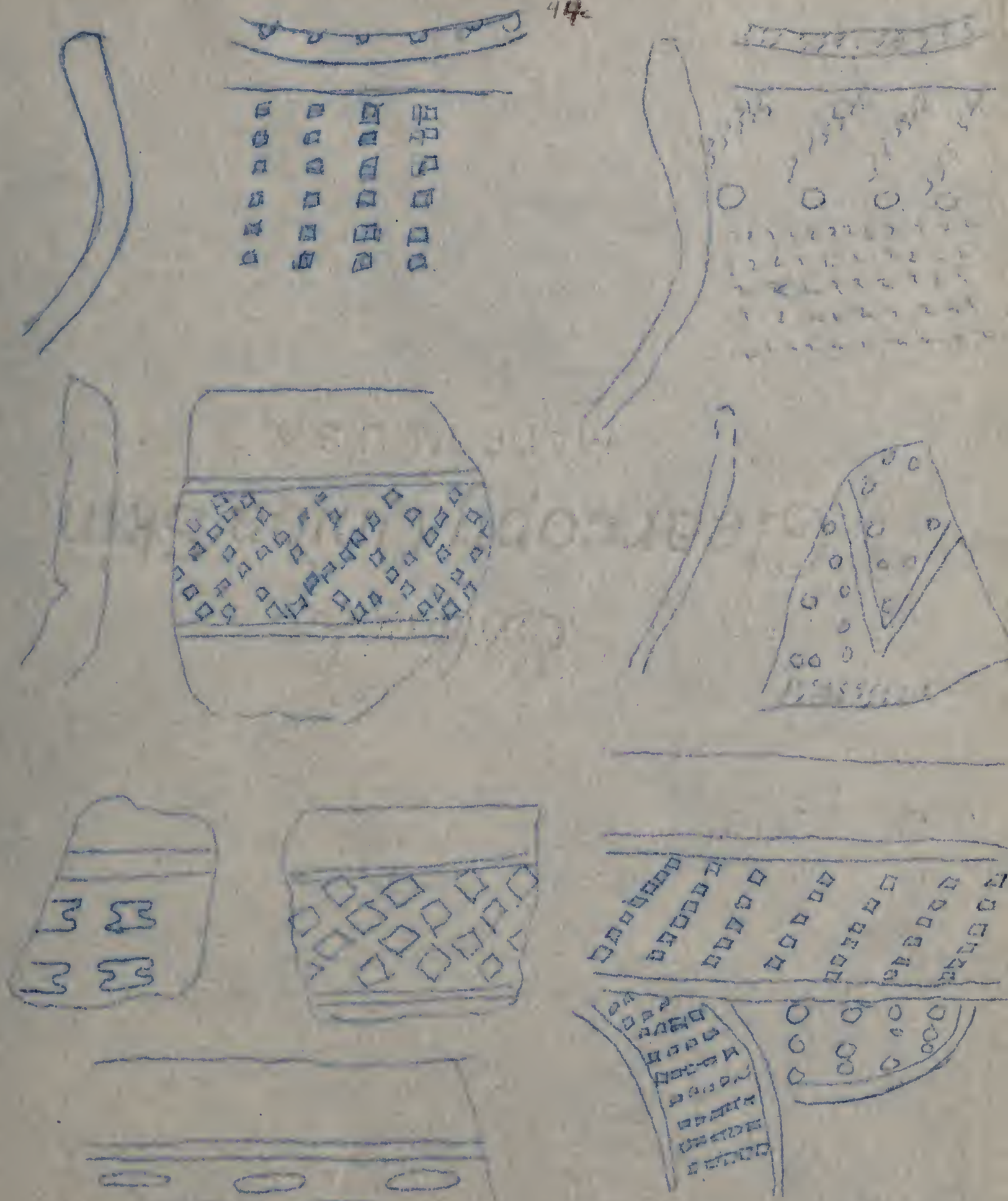
SCIENCE, October 1956.

TITTERINGTON, P. F. 1950 "Ear Spools?" American Antiquity, Vol. 16, No. 1. Salt Lake City.

TOWNSEND, EARL C. Jr. 1956 "Twin Illinois Hopewellian Monitor Pipes" Illinois State Archaeological Society, Vol. 2, No. 3. Springfield.

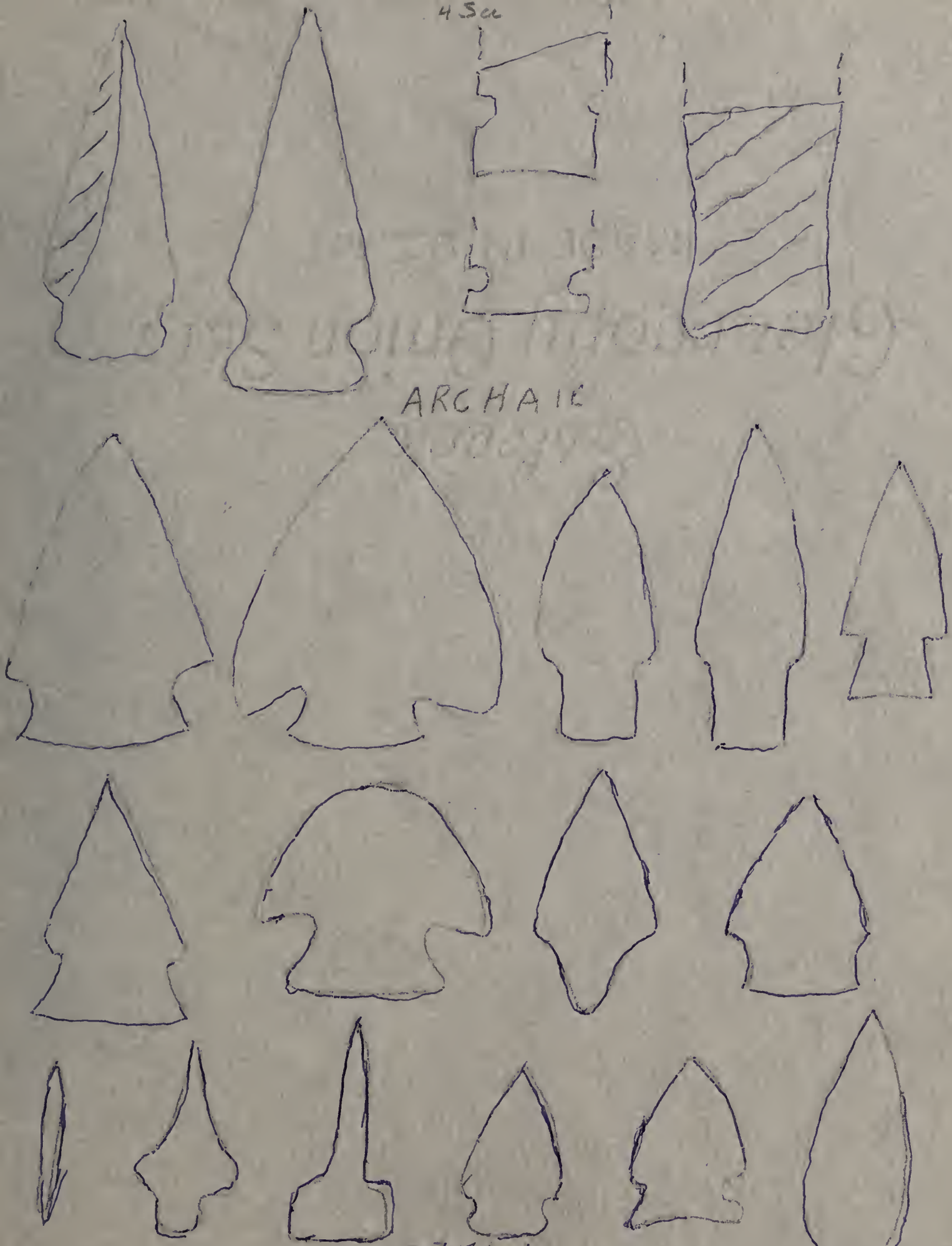
WILLOUGHBY, C. C. and E. A. HOOTEN 1952 "The Turner Group of Earthworks, Hamilton County, Ohio." Papers of Peabody Museum of Archaeology and Ethnology, Vol. 8, No. 3. Cambridge.

WRAY, DONALD E. 1952 "Archaeology of the Illinois Valley" in Archaeology of the Eastern United States ed. by J. B. Griffin, University of Chicago Press. Chicago.



HOPEWELL STAMP
VARIANTS

WEAVER SITE


4.5cm
ARCHAIC
HOPWELL
WEAVER SITE PROJECTILES

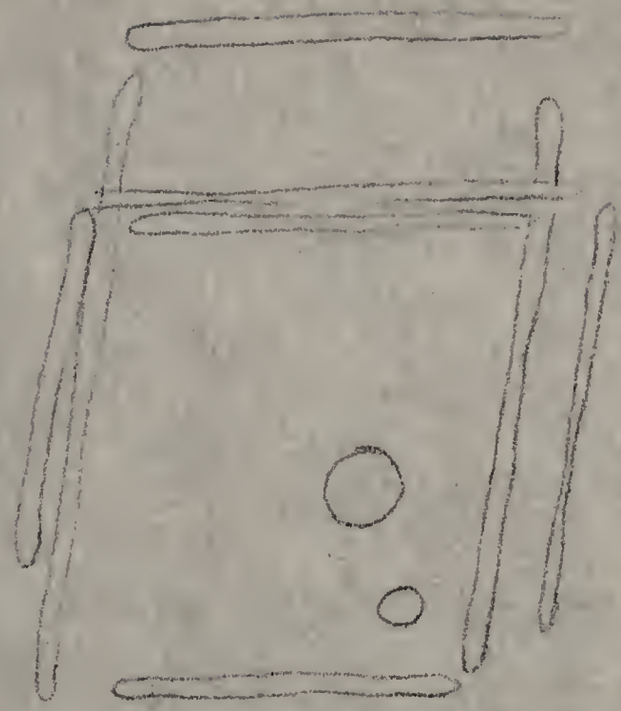
TYPE	BODY	RIM	TOTAL	%
52. Pike Zoned Plain Rocker				
53. Pike Plain				
54. Pike Cord Marked				
55. Pike Incised				
56. Plain Rocker - grit				
57. Baehr Plain				
58. Baehr Zoned Brushed				
59. Baehr Zoned Stamped				
60. Baehr Brushed				
61. Baehr Zoned Punctate				
62. Baehr Zoned Brushed				
63. Brangenberg Plain				
64. Montezuma Punctated				
65. Calhoun Red Filmed				
66.				
67.				
68.				
70. Canteen Cord Marked				
71. Canteen Plain				
72. Pulcher Cord Marked				
73. Pulcher Plain				
74. Monks Mound Red				
75. Weaver Cord Marked				
76. Weaver Plain				
77. Clear Lake Cord Wrapped Stick				
78. Weaver Punctated				
79. Gooden Cord Marked				
80. Gooden Cord Impressed				
81. Blumenshein Cord Impressed				
82. Mossville Cord Marked				
83. Unidentified Grit				
84.				
85.				
86.				
87.				
88. Powell Plain				
89. Ramey Incised				
90. St. Clair Plain				
91. Cahokia Cord Marked				
92. Cahokia Red Filmed				
93. Wells Incised				
94. St. Clair Incised				
95. Tippet Bean Pot				
96. Crable Trailed				
97. Crable Deep Rimmed Plate				
98. Mound Place Incised				
99. Kimmswick Plain				
100. Cahokia Crud				
101. Crable Rim Incised				
102. Unidentified shell				
103.				
104.				
105.				
106.				
107.				
108.				
109. Oneota Plain				
110. Oneota Incised				
111. Fisher Cord Marked				
112. Fisher Incised				
113. Langford Plain				
114. Langford Incised				

SHERD COUNTS OF CENTRAL AND NORTHERN ILLINOIS POTTERY TYPES

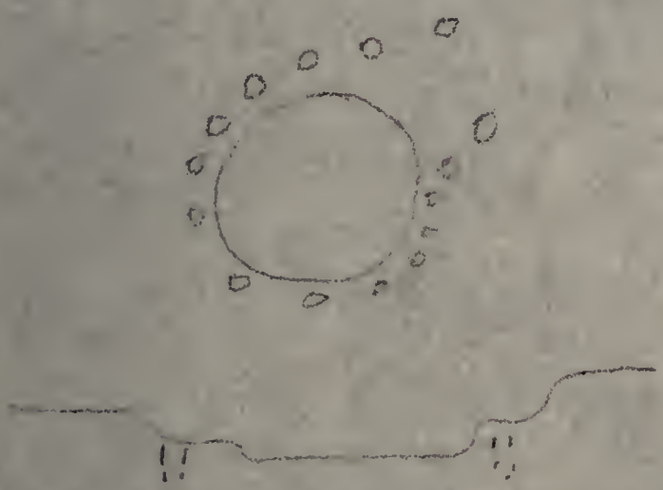
Site No._____ County_____ Collected by_____ Date_____
Site Name_____ State _____ Sorted by_____ Date _____
Surface Collection_____ Excavation Unit_____ Cat. No._____

TYPE	BODY	RIM	TOTAL	%
1. Marion Thick				
2. Black Sands Incised				
3. Liverpool Cord Marked				
4. Morton Incised				
5. Sister Creek Punctated				
6. Crab Orchard Fabric				
7.				
8.				
9.				
10. Havana Plain				
11. Havana Cord Marked				
12. Neteler Dentate Crescent				
13. Neteler Plain Crescent				
14. Snyders Plain Stamped				
15. Snyders Dentate Stamped				
16. Snyders Cord Wrapped Stick Stamped				
17. Snyders Barred Ovoid				
18. Snyders Pinched				
19. Naples Plain Stamped				
20. Naples Dentate Stamped				
21. Naples Cord Wrapped Stick Stamped				
22. Hummel Dentate Stamped				
23. Hummel Plain Stamped				
24. England Stamped				
25. Ogden Plain Ovoid				
26. Ogden Barred Ovoid				
27. Ogden Cross Barred Ovoid				
28. Havana Zoned Dentate				
29. Havana Zoned Incised				
30. Havana Zoned Cord Wrapped Stick				
31. Fettie Incised				
32. Victory Brushed				
33.				
34.				
35.				
36. Hopewell Plain				
37. Hopewell Zoned Dentate Stamped				
38. Hopewell Zoned Incised				
39. Hopewell Rim				
40. Hopewell Zoned Plain Rocker				
41. Hopewell Zoned Cord Wrapped Stick				
42. Hopewell Zoned Red Filmed				
43. Hopewell Zoned Incised - grit				
44. Hopewell Zoned Dentate - grit				
45. Hopewell Rim - clay temper				
46. Hopewell Rim - grit temper				
47.				
48.				
49.				
50. Pike Plain Rocker				
51. Pike Dentate Rocker				

F237-H 11
16' + 16'



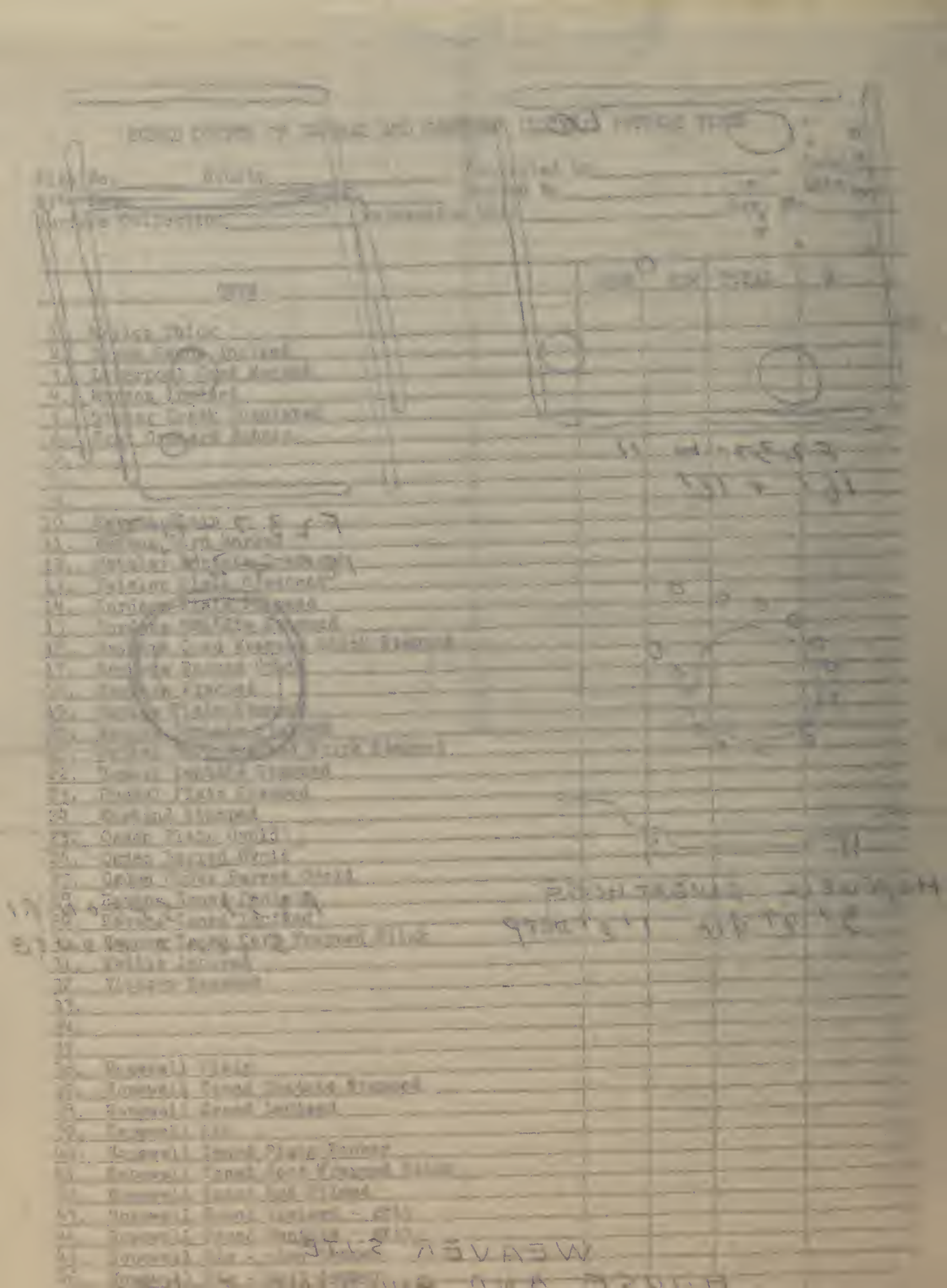
F237-H2
18' + 24'



HOPEWELL SWEAT HOUSE
3' 4" DIA 1' 3" DEEP

F237 SPOON RIVER
SWEAT HOUSE

WEAVER SITE
HOUSE AND BUILDING TYPES



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File No. _____ Results _____ Accepted by _____ Date _____

Site Name _____ Location _____ Sheet No. _____ Date _____

Surface Collection _____ Excavation Unit _____ Grid No. _____

	Date				
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3.	[illegible]				
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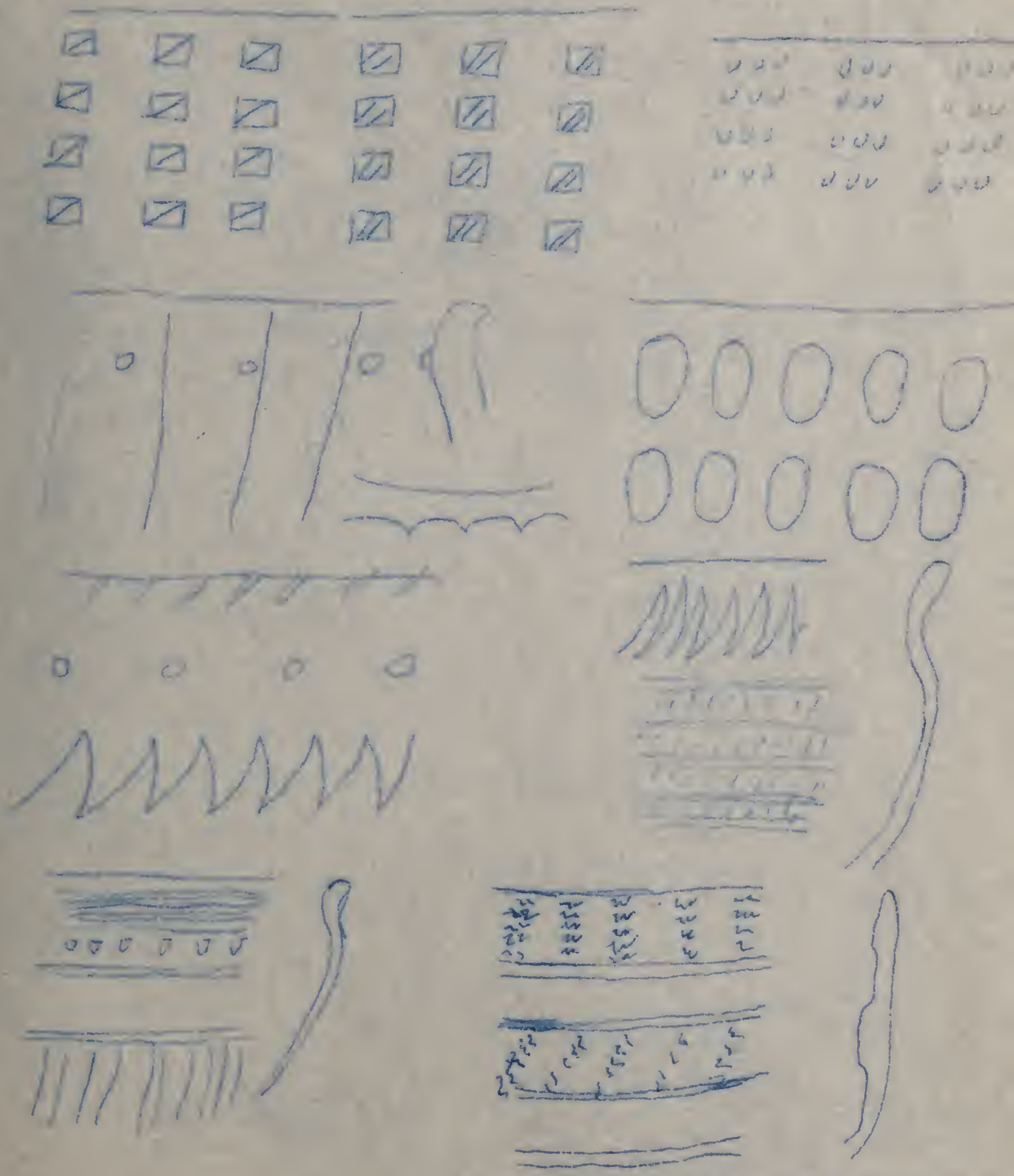
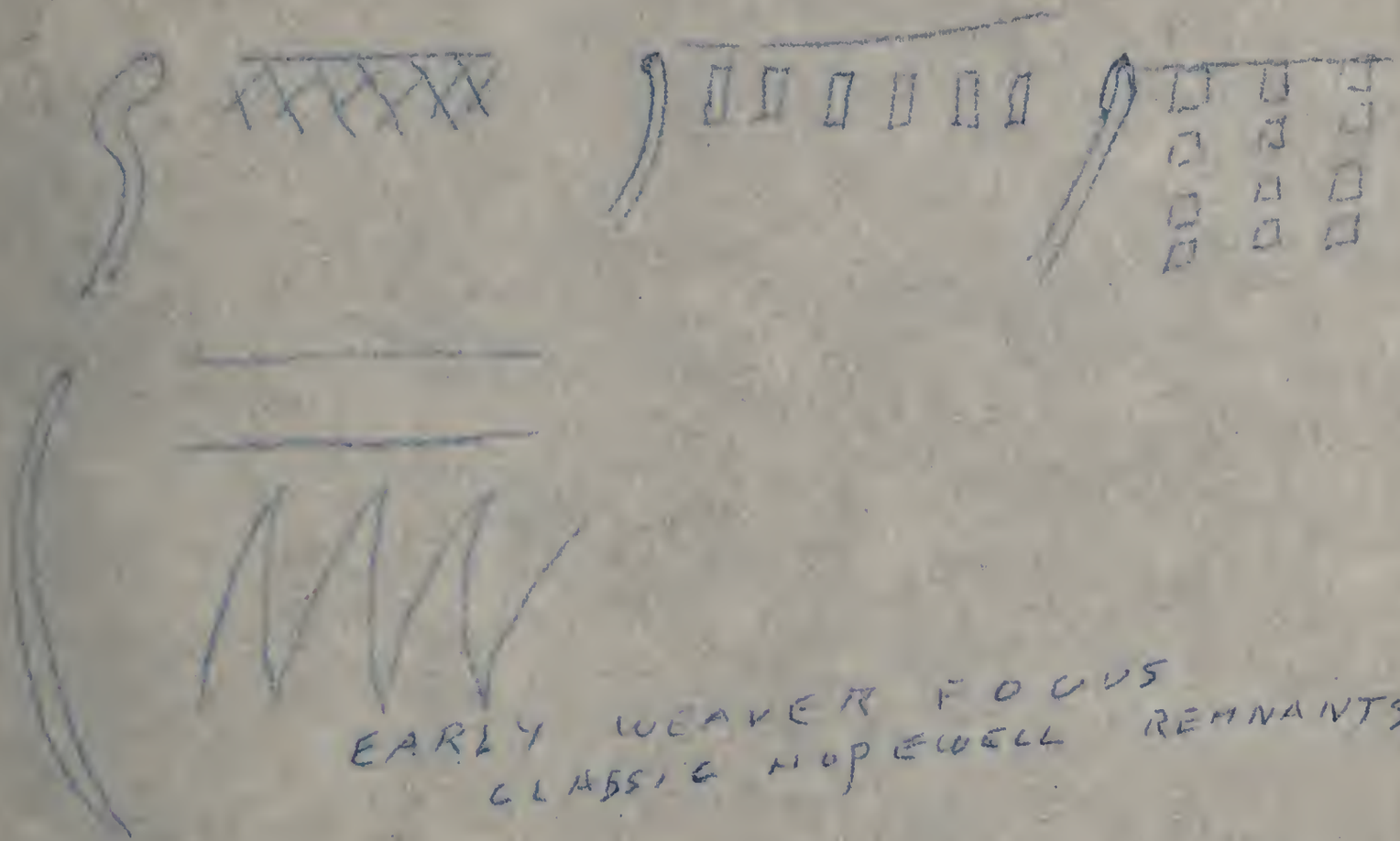


HOPEWELL - BAEHR

WEAVER SITE



EARLY WEAVER FOCUS
CLASSIC HOPEWELL REMNANTS

SERIATION OF WEAVER FOCUS RIMS

WEAVER SITE

Hopewell House Trait List

POTTERY

	No.	Total
Early Woodland		
Black Sand		
Black Sand incised	1	
Liverpool Cord Marked		
Morton Complex		
Morton Incised	1	
Sisters Creek Punctate		
Neteler		2
Middle Woodland		
Havana Ware		
Cord Marked	359	
Plain	389	
Neteler		
Fettie incised		
Fettie stamp	1	
Naples stamp	2	
Havana zoned stamp	18	
Havana zoned incised	1	
Ogden (Naples) ovoid stamp	1	
Ogden diamond stamp		
Naples cord wrapped stick	9	
Hummel stamped	75	
Hummel rockered	13	
England stamped	4	
Steuben punctate	2	
Victory brushed	12	886
Hopewell		
Hopewell Classic		
Rim	9	
Zoned stamped		
Zoned incised		
Rocker	13	
Red film		
Zoned red		
Negative paint		
Plain	10	
Monte_uma punctate		
Brangenburg		32
Bachr		
Brushed	8	
Zoned punctate		
Zoned stamped		
Zoned incised		
Rockered	3	11

	No.	Total
Supply Department		
Black Band		
Black Band Unlined	1	
Liverpool Cord Marked		
Boston Compline		
Marking Twilled	1	
Sisters (Green Turnbets		
Marked		2
Middle Department		
Brown Ware		
Good Marked	308	
Plain	380	
Totals		
Pretty Unlined		
Pretty stamp	1	
Purple stamp	8	
Brown Ended stamp	16	
Brown Ended Unlined	4	
Ogden (Twills) crown stamp	1	
Ogden Flanged stamp		
Twills, cord wrapped stitch	9	
Tunnel stamped	78	
Tunnel Polished	13	
Unlined stamped	4	
Stamped monolite	2	
Flatway Grooved	19	550
Copewell		
Copewell Classic		
Pile	9	
Lined stamped		
Lined Unlined		
Monkey	18	
Ink Pile		
Lined red		
Negative medal		
Plain	10	
Monte Cow pumpkin		
Contemporary		62
Lacey		
Brooklet	8	
Lined pumpkin		
Lined stamped		
Lined Unlined		
Gardered	3	11

Beaver	No.	Total
Plain	65	
Cord Marked	89	
Collared	1)	
Cross hatch on collar	1)	
Stamped		
Rockered		155
Total sherds for house		1084
Maples Mills) Intrusive pits	17	
Old Village)	10	27

ANTLER BONE & SHELL

Pointed and tanged antler projectile point	1
Beaver jaw	1
Dog skulls detached	2
Turtle shell cut and drilled	5
Bird bone awls	4
Shaped bone awl	1
Splinter awl	6
Elk antler club	1
Bone tube	1
Double pointed awl	1
Shell spoons	2
Shell hoes	6
Perforated shell	1

STONE

Medium side notched points	3
Contracting base point	1
Oval knife	3
Core scrapers	f
Flaked knives	f
Chipped hoes	7
Celt Rectangular cross section straight sides	1

OTHER

Drilled bear tooth	1
Clay human effigy	1
Stone cup or drill rest	1
Old Village projectiles	2
Miniature bowls	2

Sewer	No.	Total
Plain	50	
Cord marked	99	
Collared	1	
Cross hatch on collar	1	
Stamped		
Rockered		155
Total sherds for house		1064
Naples Hills } Intrusive pits	17	
Old Village }	10	27

ARTIFACTS BONE & SHELL

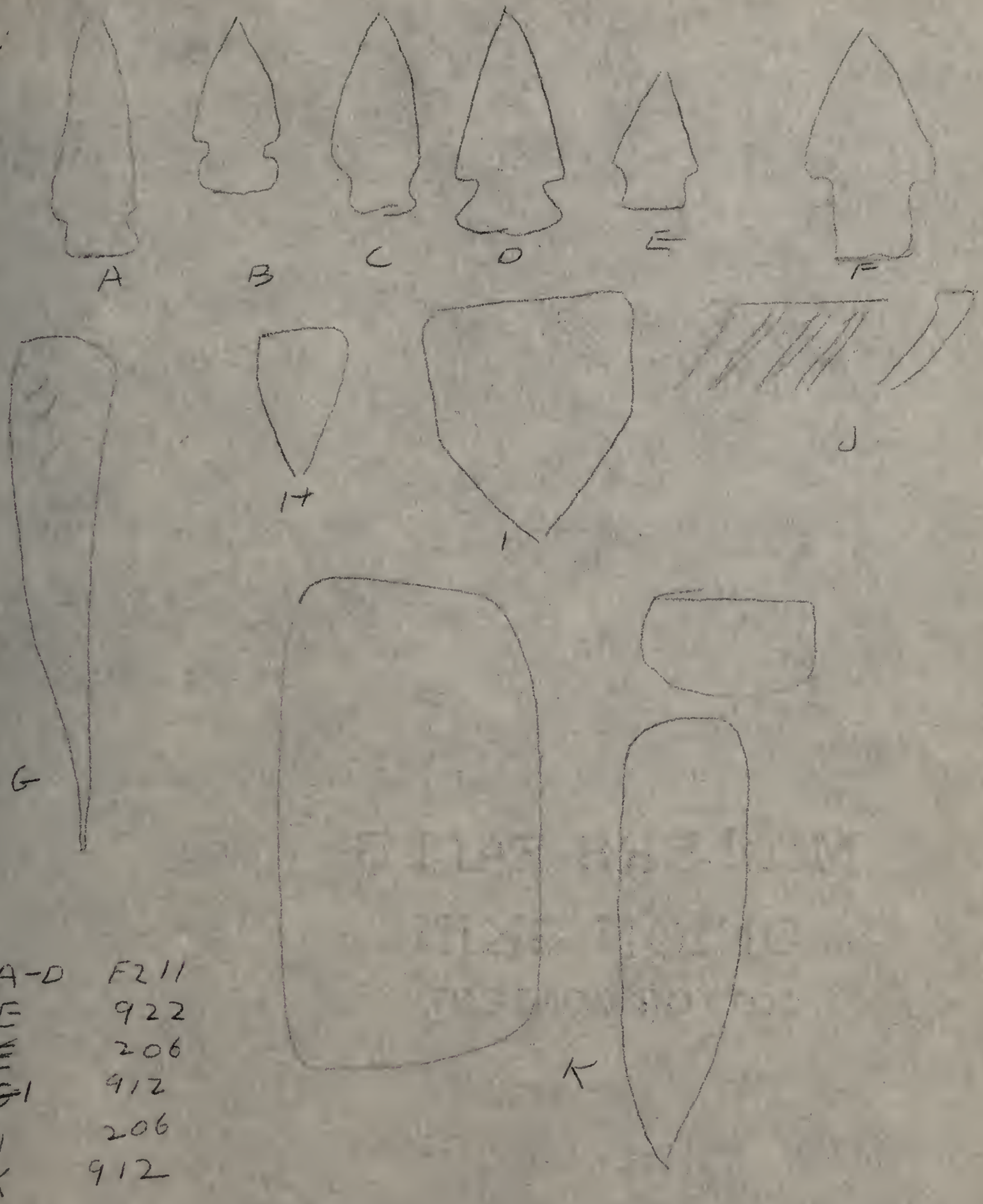
Pointed and tanged antler projectile point	1
Beaver jaw	1
Dog skulls detached	2
Turtle shell cut and drilled	3
Bird bone awls	4
Shaped bone awl	1
Splinter awl	6
Elk antler pick	1
Bone tube	1
Double pointed awl	1
Shell spoons	2
Shell hoes	6
Perforated shell	1

STONE

Medium side notched points	5
Contracting base point	1
Trail knife	5
Bone scrapers	5
Flaked knives	2
Chipped hoes	7
Celt rectangular cross section straight sides	1

OTHER

Drilled bear tooth	1
Clay bowen effigy	1
Stone cup or drill rest	1
Old Village projectiles	2
Miniature bowls	2

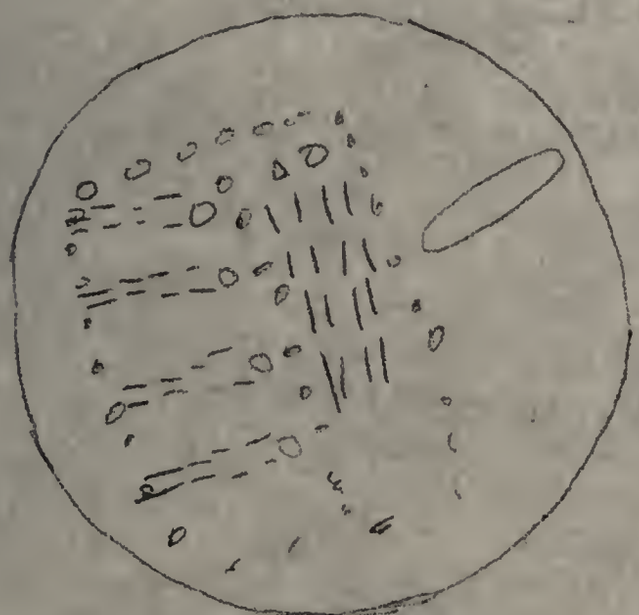


A-D	F211
E	922
E	206
G-I	912
J	206
K	912

WEAVER SITE ARTIFACTS
FROM SOUTH GROUP

907

382



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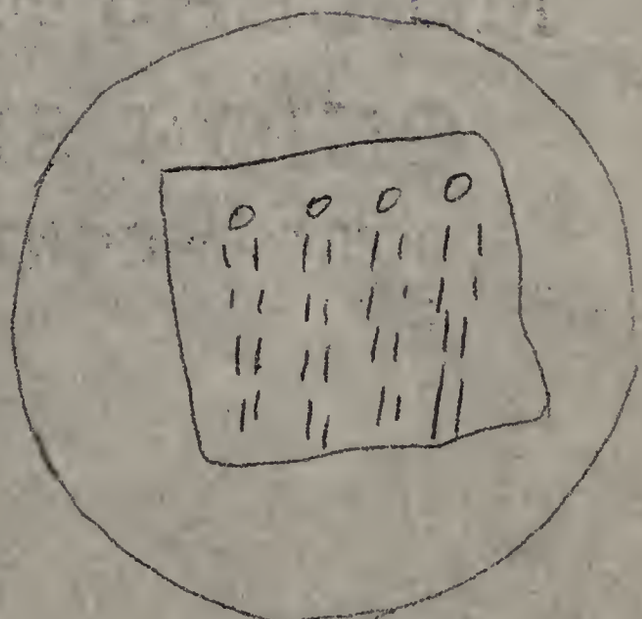
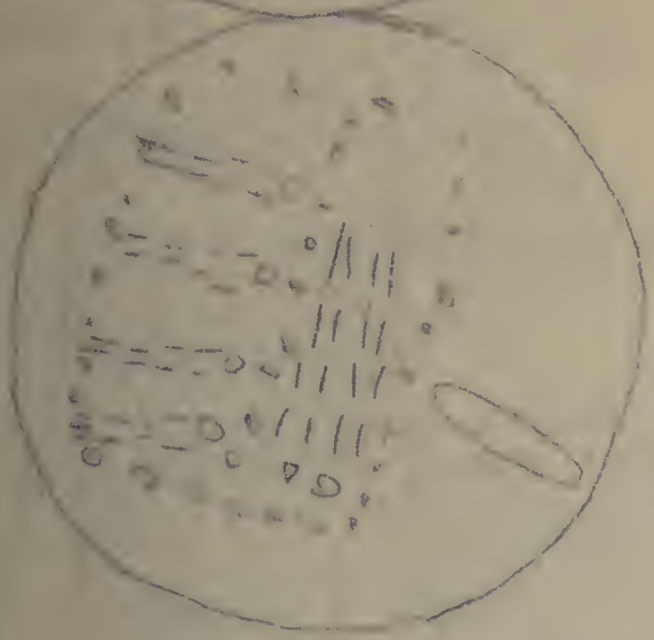


WEAVER SITE
CLASSIC HOPEWELL MOUNDS

534



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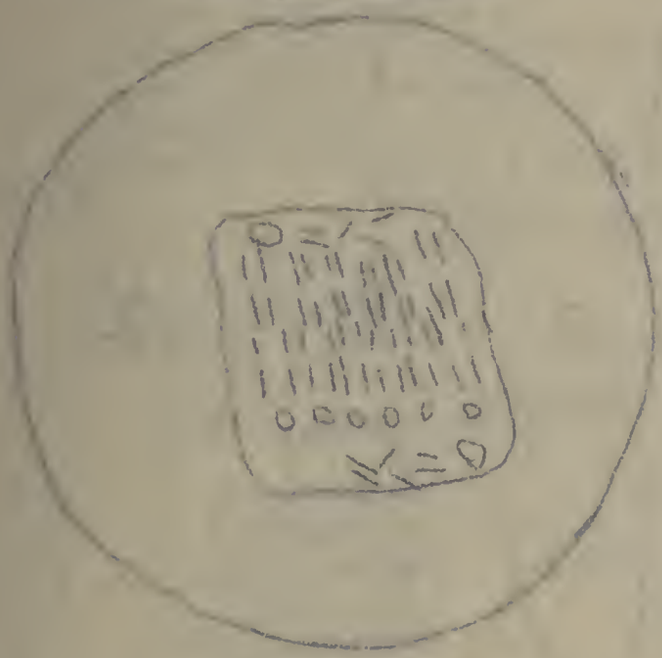
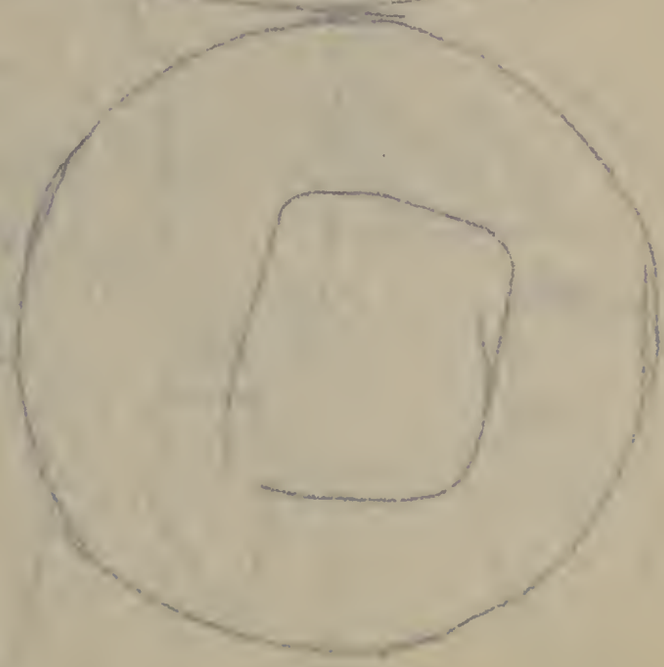
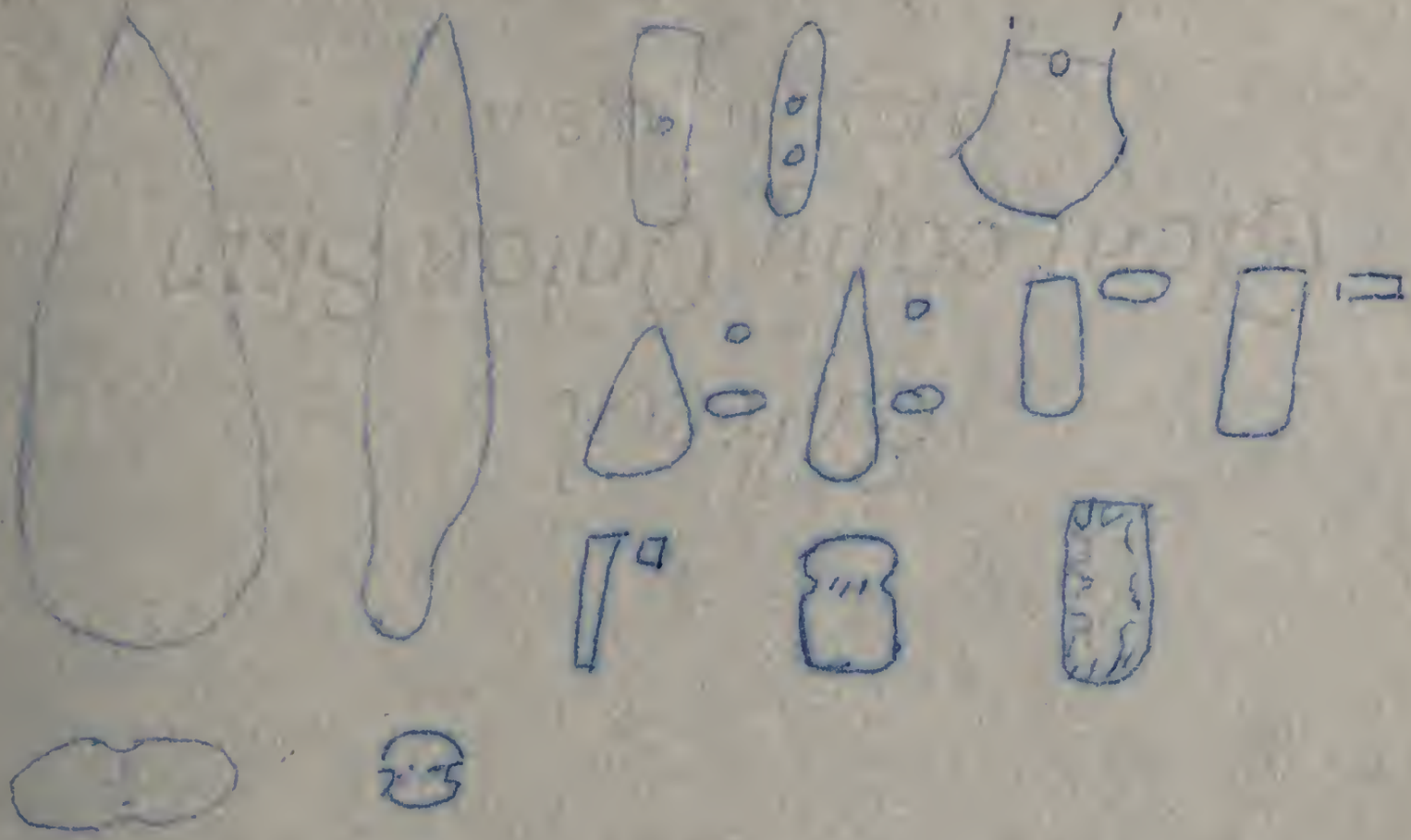
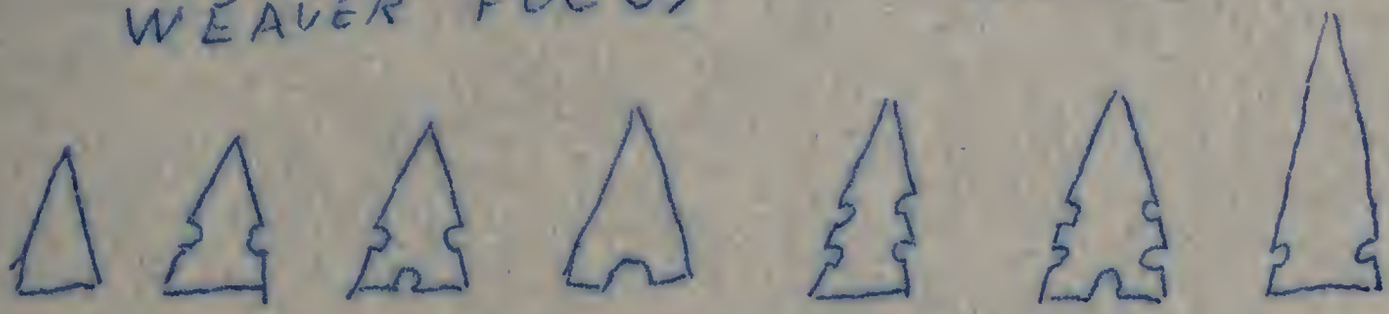






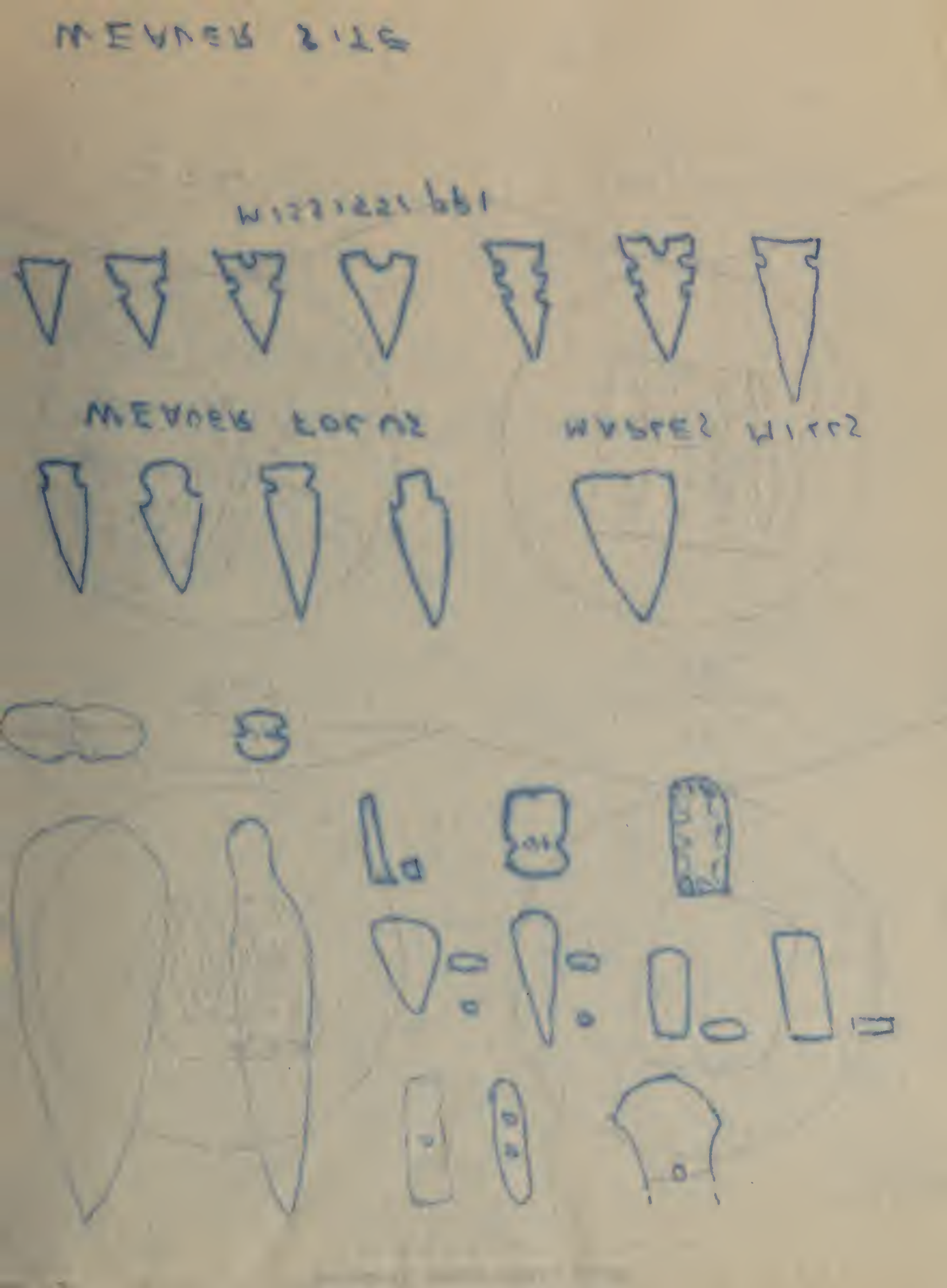
WEAVER FOCUS

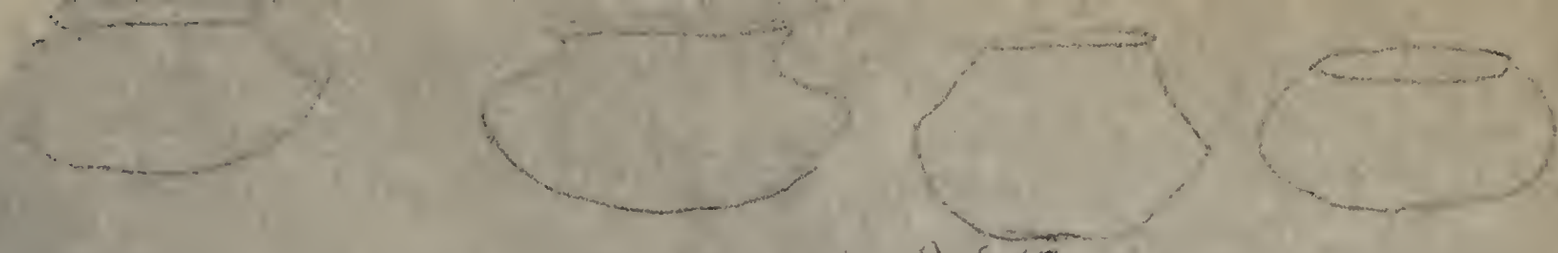
MAPLES MILLS



MISSISSIPPI

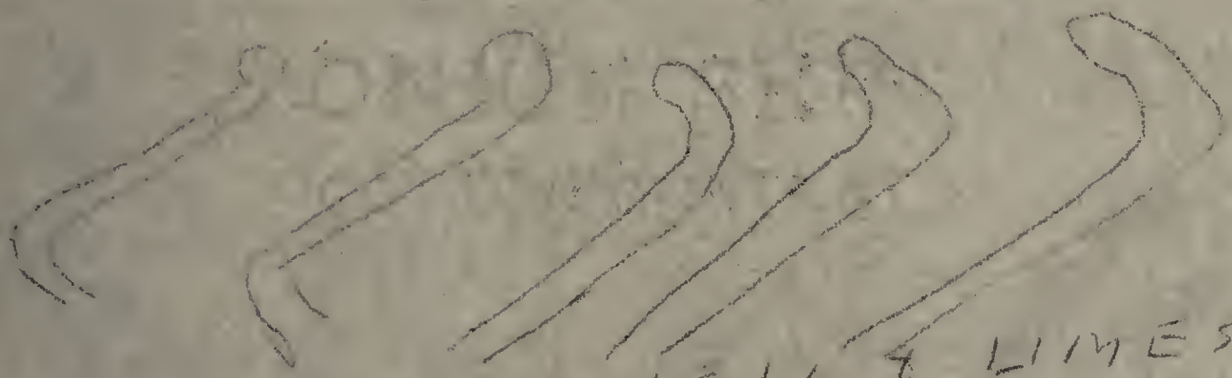
WEAVER SITE



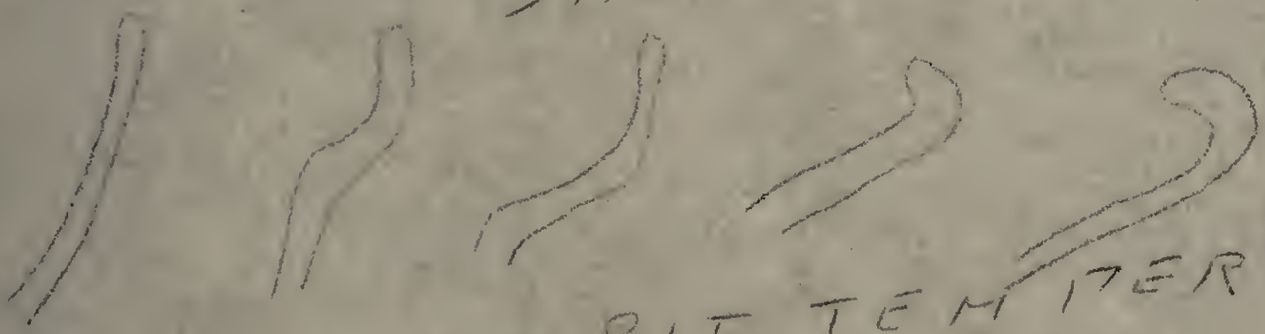


OLD VILLAGE

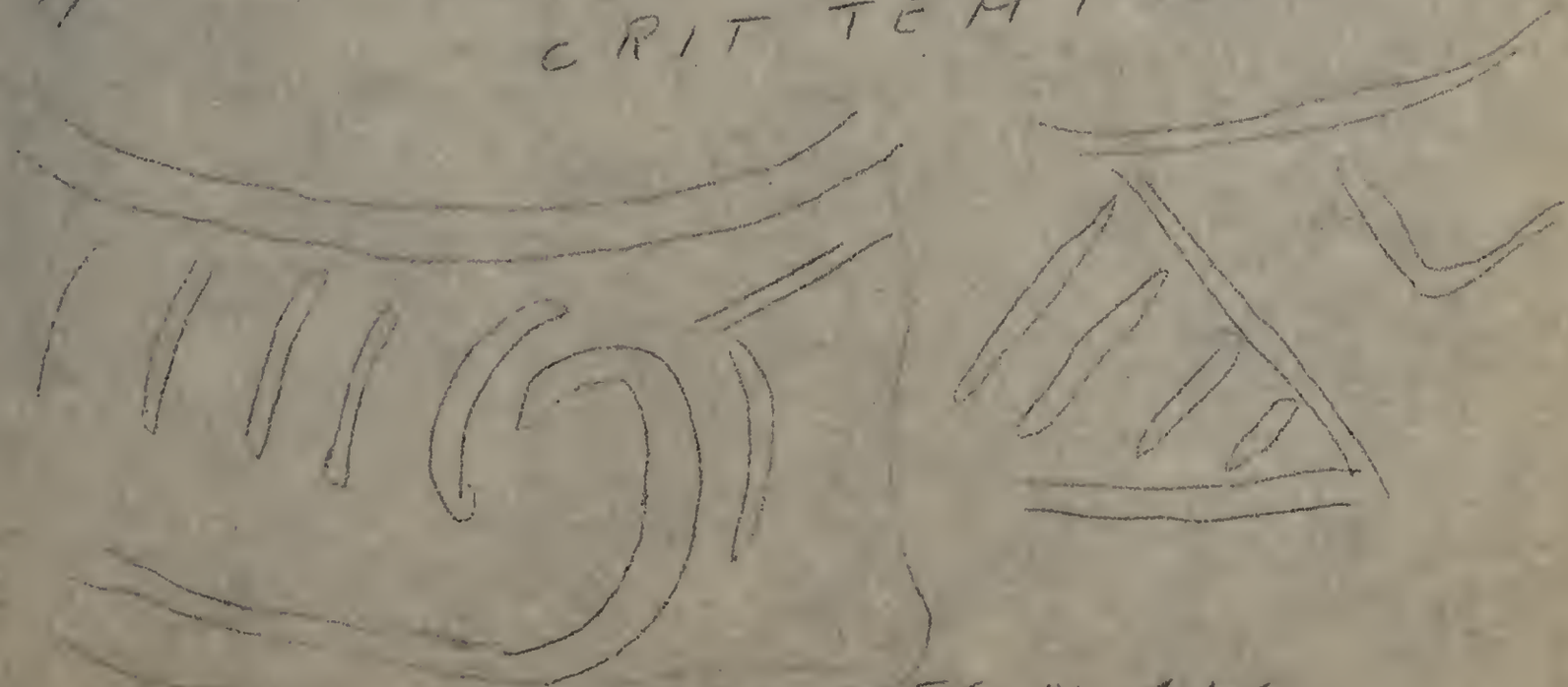
MAPLES MILLS



SHELL & LIMESTONE



CRIT TEMPER



OLD VILLAGE - MAPLES MILLS
GARREN FOCUS 120